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NOTES AND COMMENTS.

The Oxford Ophthalmological Congress. THE 1914 meeting of the Oxford Ophthalmological Congress promises to be of unusual interest. The proceedings commence on Wednesday, July 8th, with an informal dinner at Keble College, at which classical abode members may obtain board and lodging at the nominal rate of 8s. *per diem.* A number of papers will be read and addresses given. It is announced, as a new feature in this year's proceedings, that discussion will follow on papers brought before the Congress, a wise resolution, which is rendered still more practical by the fact that a time limit of five minutes is imposed on each speaker. Many points of importance in the study of the human eye and its diseases will be discussed from various standpoints by authorities on this important branch of medical science. Among those present will be found eminent men from all quarters of the world. An interesting feature is a comprehensive collection of water-colour drawings of the fundus oculi of the lower animals, by Mr. A. W. Head, a collection involving a vast amount of original research and achievement. Full particulars of the Congress can be obtained from the Honorary Secretary, Mr. Sydney Stephenson, D.O., F.R.C.S.

Important Panel Judgment. THE reserved judgment delivered last week by Mr. Justice Bray in a Divisional Court has an important bearing on the relationship of the medical profession to the National Insurance Act. It will be remembered that Dr. Alfred Salter, of Bermondsey, refused to sign a document supplementing his original duties by an undertaking to issue duplicate prescriptions. For that refusal he was dismissed by the London Insurance Committee. His action was sustained in the lower, and now has been endorsed by the Appeal Courts. In effect, the Insurance Committee has received a sharp reminder that it can exercise no arbitrary powers over the rights of medical men on the panel. The just administration of a great and complicated Act is absolutely essential for a proper development of its admitted potentialities for good. The Act is with us, and while there is no justification for the continuance of unreasoning and vexatious opposition, it is nevertheless desirable in the interests of all concerned to watch its administration with unrelaxing vigilance. Dr. Salter deserves the congratulations of the profession for his determined action. We should be glad to consider a formal presentation of thanks if an adequate number of our readers affirm their active approval of some such step.

The "Family Encyclopædia of Medicine." IN our issue of last week it was pointed out that the name of a member of the General Medical Council appears on the list of "contributors" to the "Family Encyclopædia of Medicine." We have since received from the gentleman in question a positive disclaimer of authorisation of the use of his name in that connection. That being the case, it may be presumed that Sir Clifford Allbutt has the remedy in his own hands. No one acquainted with his distinguished character and work would for a moment imagine he had voluntarily sought publicity of the peculiar nature extended to those medical men whose names, titles and professional appointments were published at full length in the first three fortnightly numbers of the work: in whole columns of lurid newspaper advertisements, and, *horribile dictu*, upon sandwich-boards paraded through the streets of London. From the first appearance of this portentous popular work it has been insisted in these columns that the medical men concerned were quite within their rights even if they actually assented to the use of their names in connection with a pseudo-professional publication. As a matter of fact, it was announced not long after the first outcry against its methods of publicity that the gentlemen concerned had met and decided not to take legal action. Later it was stated that the publication of the names, titles and appointments would cease with the issue of the third number. It was also generally intimated that the "contributors" were not paid for their services, which mainly consisted of revision of proofs.

Part No. IX. WHAT do we find in the ninth part, the last which has reached the public? The issuing of fortnightly numbers has now extended over some four months, so that ample time has elapsed for the "contributors" to consider their position and to take stringent steps to put themselves right with the medical profession, or, at any rate, with that portion of it which still regards with respect the somewhat austere traditions that have hitherto regulated the relations of medical men to the public as regards purely professional topics. The ninth issue contains an article on eczema, and the original prospectus and the earlier numbers inform us Sir Malcolm Morris is responsible for that part of the work dealing with diseases of the skin. A perusal of the article shows that the name of Sir Malcolm Morris occurs twice, first, apparently as the authority for a wholly unoriginal classification of eczema, and, secondly, in reference to his well-known book on "Diseases of the Skin." It may be assumed that Sir Malcolm Morris could not have written the article, neither could he by any possibility have passed proofs which referred the lay readers of a popular medical work to an accepted text-book written by himself.

Another Skin Book. The editor of the "Encyclopædia," in permitting these references, displays little or no intention of amending his ways. It was pointed out some months ago in these columns that in the first three numbers references were made to certain medical text-books, amongst which was one by Dr. J. H. Sequeira. That gentleman's book needs no commendation in medical circles, where it is recognised as an authority—but why advertise it to the public? The editor of the "Encyclopædia," for some reason or other best known to himself, seems to think that the lay Britisher needs special illumination upon that complicated branch of study commonly spoken of as dermatology. Dr. Riddle, moreover, exercising his undoubted right as an editor has seen fit to give special prominence to the works of two writers, Dr. J. H. Sequeira and Sir Malcolm Morris. The writers of other books upon diseases of the skin probably will not in the long run regret that their reputation will depend on agencies other than the commercial activities of Messrs. Harmsworth. In future it will be difficult for anyone to blame any medical man who may seek publicity in lay publications for his professional qualifications and for medical books of his own production. The difference, however, between his case and that of the "contributors," is that the latter have not to pay for the notice of their names, whereas non-contributors to the "Encyclopædia" would find newspaper notices obtainable only at high advertisement rates.

The Deadly Nexus. If the "contributors" have been basely tricked and their names used unwarrantably by the proprietors of the "Encyclopædia," why do they not take immediate steps to set themselves right with their professional brethren, who so far have escaped the deadly nexus spread for the unwary by up-to-date publishing enterprise? A legal remedy has apparently not commended itself to their collective judgment. Short of that, it would at least be possible for them to bring such pressure upon the editor, Dr, Riddle, as to prevent the further insertion of names and pointed allusion to technical medical books in current numbers. Months have elapsed since Part I. burst upon the astonished gaze of the medical world, and by this time contributors should at least have secured a clear understanding as to the methods to be adopted in the completion of the "Encyclopædia." The medical profession is entitled to something more than a general transference of the blame to editorial shoulders. Nor can anything be gained by turning the weapons of sarcasm and obloquy upon the Medical Press and Circular, which has merely acted on its traditional policy in defending the honour of the profession. Rather should the "contributors" thank us for the opportunity afforded by our comments to explain the why and wherefore of their presence in that galley. The medical profession is good-natured and charitable in a matter of this kind, but a hushing up policy is hardly likely to evoke its spontaneous and sympathetic forgiveness.

Artificial Teeth for the Poor. It is a curious fact that no provision has been made in recent health legislation for supplying artificial teeth for the indigent poor. A great deal of preventable suffering is brought about by faulty dentition, as every medical man knows, in fact, oral sepsis is responsible for many grave systemic disorders. In the absence of national dental insurance benefit the burden of attending to the dental needs of the poor must needs be borne by private philanthropy, though the dental hospitals do what they can to relieve the poor in this direction. An inquiry as to the number of edentulous persons among the poor, especially in the East End of London, would, no doubt furnish some interesting data; at the same time it could hardly fail to call public attention to one of the most crying needs of the day—namely, the inclusion of dental benefit in that granted under the National Insurance Act. A handsome gift was announced the other day from Mr. Edwin Tate, of Park Lane, of £5,000 to St. Bartholomew's Hospital, the income of which is to be used "to assist necessitous persons to obtain artificial teeth." Under the terms of this fund it is stated that such persons may be assisted to the extent of one-half of the estimated cost of the teeth. Nothing will be paid until the dental surgeon recommending the case has certified that the teeth supplied are satisfactory. The systematic dental inspection of school children will do much to benefit the dentition of the rising generation, but something still needs to be done in the direction of inspecting the mouths of older people in workhouses and elsewhere.

LEADING ARTICLES.

HOW TO COMPENSATE A DIMINISHING BIRTH-RATE.

A diminishing birth-rate has of late years become a matter of serious socio-political significance. Its incidence appears to be an outcome of the increasing complexity of life and it has affected, more or less profoundly, the civilised nations of the world. In the case of France the falling off in population has been so great as to arouse the apprehension of responsible politicians and students of social science. So far it can hardly be said that any satisfying conclusions have been arrived at with regard to the contributory causes of the decline, or to the best means of combating the same in the interests of the community. At the same time certain points have been established. For instance, the fact that both the marriage and the birth-rate rise in proportion to the material prosperity of a nation may be accepted as more or less axiomatic: similarly, the unequal distribution of wealth is closely concerned in the diminution, a statement that is borne out by the fact that fecundity is, broadly speaking, in inverse ratio to parental wealth. Poverty-stricken Whitechapel is peopled by large families, while wealthy Mayfair counts its children by twos and threes. But although the economic factor admittedly plays an important part in the matter, it by no means accounts for the whole of the modern civilised movement in favour of small families. The average age of marriage has become later and later, a fact that is probably due in the main to economic causes. The increasing disinclination of women to bear children is largely due to their recognition of the shortened life and impaired health consequent on frequent child-bearing. Against a conclusion of that kind the moralists are hardly likely to declaim with much effect. For that matter it does not appear that anyone has so far provided an efficient remedy to stem the steady decline of the birth-rate. Last week Lord Haldane threw some philosophic light upon the problem. He observed that the diminution of the birth-rate might be not altogether an evil. It might mean that people were more careful in contracting marriages, and that there was a general desire, far spread, on the part of the people to bring up their children in a better way than they have in the past. He then dealt with the crucial point of compensation for a lessened number of births by a decreased infantile and juvenile mortality. Therein lies, if we mistake not, the key to a statesmanlike handling of the diminishing birth-rate. Lord Haldane dwelt not only upon the children who had come into the world and died during the first twelve months, but also upon those who had never come into the world at all, although under proper conditions they would have added to the normal increase of population. The statistics he stigmatised as "frightful." The death-rate during the first twelve months was 128 per 1,000; while the rate of full grown and healthy children still-born was 150 per 1,000. Recent legislation has endeavoured to ameliorate the condition of maternity amongst the poorer classes of society, both as regards the conditions of maternal labour and of medical care and nutrition during and after the confinement. As to the children, much has been done by extending relief to working classes during unemployment, by the provision of a wide system of medical aid and by the feeding and medical care of school children. In these various ways the adverse effects of a lessened birth-rate will in all probability be more or less counterpoised. The causes of the diminution are complex and obscure, and for their detection as well as their remedy we must turn to the better organisation of society as regards the distribution of wealth and the other internal economic relationships that lie at the root of all progress in the public health.

CURRENT TOPICS.

Maternity Benefit and Midwifery Teaching.

A special committee was appointed at the beginning of the year by the Glasgow Obstetrical and Gynæcological Society to inquire into the effects of the maternity benefit upon the teaching and practice of midwifery in Glasgow during the first year of the National Insurance Act. The committee's data were obtained (a) from medical institutions and public bodies; (b) from the replies of general practitioners to a series of questions addressed to 450 medical men. Of the 222 who made returns, only 166 gave replies suitable for the purpose of the inquiry. In their report recently issued the committee states that to the general question whether the maternity benefit had favoured the comfort and safety of the mother and child, 57 practitioners replied in the affirmative, 36 in the negative, 16 had observed no change, 3 were of opinion that the Act had been prejudicial in this direction, 24 that the effect was doubtful or partly beneficial and partly prejudicial, while 30 could express no opinion. Such a want of decisiveness in the general result of the replies to this question in itself would appear to indicate that the maternity benefit has not promoted in Glasgow the comfort and security of mothers and infants to the extent that might have been hoped for. Giving the effect of the replies to the special questions, the committee states that the medical profession as a whole has not obtained—nor does it desire—an increased amount of maternity work in consequence of the Insurance Act. On the other hand, as there has been a marked decrease in the number of cases at the Maternity Hospital and the Poor-law hospitals, it is to be inferred that more work is being done by midwives. It does not appear that the trained nurse is more frequently employed—and in any case the untrained midwife continues in favour. The explanation suggested by the committee is that now that there is money available, housekeeping services, which formerly were given free by friends or neighbours, have to be paid for. Consequently the "handy woman" who will care for the house as well as the patient is preferred. The decrease—amounting to 30 per cent.—in the outdoor practice of the Maternity Hospital is stated to be a serious hindrance to midwifery teaching.

The Death-Rate on the Rand.

A severe indictment of the conditions of native labour in the gold mines of the Rand is disclosed in the report made by Dr. W. C. Gorgas, Surgeon-General to the U.S. Army and chief sanitary officer of the Panama Canal Commission, who was called in by the Transvaal Chamber of Mines. In the report which appears in the *Journal of the American Medical Association*, Dr. Gorgas brings out the startling fact that the death-rate among natives employed in the Rand mines in 1903 was over 71½ per 1,000. This had fallen in 1912 to just over 26 per 1,000, which, says, Dr. Gorgas, is "still very much too high, as we are considering men in the prime of life." The Panama Canal zone is notoriously unhealthy, but the death-rate among the negro labourers on the Canal in 1912 was only 10 per 1,000, or less than half the Rand record. The principal causes of this slaughter are pneumonia and tuberculosis, and Dr. Gorgas found that in the living quarters each native was only allowed 14 feet of floor space, against a reasonable minimum of 50 square feet. He says the remedy for the existing high death-rates is to allow the natives to bring their families with them and allow each family to be housed in its individual hut, rather than have large numbers of native labourers crowded together in compounds, as is the case at present. All experiments failed on the Panama Canal zone until this method was adopted, and he strongly advises the abolition of the Rand compounds. It is to be hoped that the South African Government will see that this reform is carried out.

Children's Country Holidays.

The attention of the Local Government Board has been called to complaints that are occasionally made as the result of town children being sent away to lodge in country districts by various philanthropic organisations or agencies. Sometimes children are said to bring disease into a village, or the want of sanitation and overcrowding sometimes prevalent in the village are prejudicial to the health of the inhabitants as well as to the children themselves. A circular has accordingly been issued by the Board to public health authorities throughout the country suggesting certain ways in which precautionary measures can be taken. It is not proposed for a moment to place any check on the country holiday movement, but it appears that the uncertainty in the present practice of the different agencies renders it advisable that effective preventive action should begin with them. It is suggested that the medical officer of health of the country district into which the children are sent should be communicated with in all cases, preferably by the central office of the agency, rather than by any individual voluntary workers. Careful inquiries should always be made as to infectious disease before the children are sent, so as to ensure, if possible, that they are not in an infectious condition, nor in the incubation stage of any acute infectious malady. Greater care should also be taken to secure cleanliness of body and clothing before the children are sent away, and the assistance of cleansing stations might be sought, where necessary, for this purpose. Finally, the necessity of calling in medical advice should a child fall ill when away is rightly urged, and should infectious disease occur, the medical officer of health of the district should be at once informed. If local authorities and the holiday agencies would exercise greater supervision the complaints referred to should never arise.

Medical Certification in Ireland.

The settlement of the certification question in Ireland has been again postponed. The present arrangements are to continue until October 31st next. That is to say, that in some eight or nine administrative areas the existing panels are to continue, while in the rest of the country insured persons will still rely on the good nature of the profession to provide evidence of sickness, such evidence being subject to review by "medical advisers," district nurses, railway porters, and other such experts. The position is highly unsatisfactory from every point of view, but it is nevertheless better than it might be. It is, at least, not irrevocable. There is no doubt that the establishment of a permanent system of the worst possible character—a system of paid medical certifiers—was imminent. It is a sign of grace in the authorities that they have, despite the extreme political pressure brought to bear on them, refrained, at any rate for a time, from committing such a crime and blunder. The arguments put forward on behalf of the insured at the recent meeting in the Dublin Mansion House, and pressed on Mr. Masterman by the deputation which visited London a few days later, are irrefutable. All that is necessary to establish a system which will be satisfactory to the profession, and will secure justice for the insured, is absolute firmness on the part of the profession, backed by a determination on the part of the insured to secure their rights.

Antidotes Included.

The Americans are a humorous folk, but they do not always know it. They have the laughable habit of taking things seriously. They are deadly-in-earnest. It has been solemnly suggested that tablets of perchloride of mercury should contain 1¼ grains of tartar emetic, so that "the drug should produce vomiting before the bichloride of mercury is absorbed and before it exerts its irritant action." It is fairly typical of transatlantic caution to consider the average man either a complete fool or an incorrigible suicidal maniac. It is what they call sense and science. One firm across the ocean sells tablets of perchloride shaped like coffins and impressed with a skull and crossbones. That would not deter the determined suicide, and it is questionable if it would save the fool. If enough people are going to be sufficiently careless to swallow corrosive tablets in mistake for "headache powders," to make such complicated amateur legislation worth while, we can do little but be thankful we are not as other men are. For all that, the idea of incorporating an antidote with every noxious thing on the market is capable of unlimited expansion. A couple of drachms of potassium bromide with every bottle of whiskey is a good idea, and would probably do well till the price of the drug became prohibitive. There is no end to the possible combinations. Every irresistible force would be wrapped up with an immovable object. Motor cars and attendant policemen would be coupled; fair ladies and 606; and every man who bought a safety razor might be presented, free, with a trained ambulance man and a triangular bandage.

Of Subcutaneous Interest.

In these times of organotherapy and complicated synthetic medication the means whereby these new powers are given into our control is neglected. We can pour things into the mouth, we can introduce them by the rectum—they do not always stay, but no matter—we can soak them through the skin, but our finest efforts, our most scientific, one-drug treatments, the products about whose action we really know anything and whose dosage is really accurate are introduced beneath the skin. Sera, vaccines and the other shibboleths of the down-to-date practitioner are subsidiary to the insignificant insinuating hypodermic syringe. Without it we would stand—like Scotland—where we did. It is one of the most useful of our bag of tricks. And it is one of the most impressive. Anyone who has seen a dose of strychnine administered in a wayside case of heart failure, or the sledge-hammer quietude of a hundredth of a grain of hyoscin in an otherwise uncontrollable mania cannot fail to be impressed. A small squirt and a microscopic tablet can work wonders, unaccomplishable by any other means. The occasional layman looks and wonders. The marvel gets into literature. The novelist has what he is always looking for—an irresistible force in a small compass. True, as far as fiction is concerned, hypodermic medication is synonymous with morphia. Sherlock Holmes has a good deal to say for that belief which is the one usually held by the people. Still, at any rate, they recognise the potency of the subcutaneous dose. Freud could no doubt explain it on the grounds of psycho-analysis. Hypodermic syringes have greatly improved during recent years. Time was when those that lasted had unsterilisable leather washers and the sterilisable ones could not stand boiling. Now one can do almost anything with them. By their means *aqua destillata* becomes one of the most effective hypnotics conceivable, under suitable conditions.

The Five Neglected Years.

The proposal to establish a clinic for babies and children under school age, recently adopted at a conference held at Manchester under the auspices of the Manchester and Salford Sanitary Association, will be welcomed by all those who have the physical welfare of infants at heart. The ordinary school clinics have proved of great value in dealing with physical defects and ailments among school children, but, as Dr. Benjamin Moore pointed out, one-fifth of all the deaths in the community occur in children under five years of age. Half the doctoring carried out by medical men is practised among infants and young children. The "five neglected years" during which disease is often left to run riot among young lives are those between a child's birth and the school age. Up to the present health legislators have ignored this important period of human existence, though the need for care and hygiene during these early years are more pressing, perhaps, than at any other time. From the economic point of view, as the Lord Mayor of Manchester remarked, properly conducted baby clinics would eventually prove to be a great saving to the nation, and instead of increasing the rates would reduce them. A good deal of preventable blindness, for instance, might well come within the scope of such clinics. It would be a good thing if the existing schools for mothers could be developed into baby clinics, and, in this manner some degree of overlapping of charitable and municipal enterprises might be saved.

Emetine as a Therapeutic Agent.

Of the three alkaloids found in ipecacuanha root, emetine, cephaëline and psychotrine, the former is the one to which the drug owes its efficacy in cases of amœbic dysentery. Owing to the vomiting occasioned by its administration the remedy fell more or less into disuse, until it was revived by Sir Patrick Manson in 1900. Eleven years later, Capt. E. B. Vedder, of the Medical Corps, United States Army, undertook some experiments in connection with the bactericidal properties of ipecacuanha in dysentery, and Sir Leonard Rogers, of Calcutta, followed these up later from the clinical aspect. It was found that one-sixth of a grain of emetine hydrochloride given hypodermically caused the disappearance of blood from dysenteric stools, no vomiting or depression being observed. Thus ipecacuanha has been robbed of all its former terrors and discomforts, and it may be said that emetine constitutes a specific treatment for hepatitis and dysentery of amœbic origin. In an admirable *résumé* of the subject contributed to the Therapeutic and Pharmacological Section of the Royal Society of Medicine, Dr. George C. Low states that keratin-coated tabloids may be given, when injections are inconvenient. More recently it has been found that emetine is useful in the treatment of hæmoptysis and intestinal hæmorhages. Even in hæmoptysis the remedy has been employed with success, and it may be noted that no change either in the blood pressure, coagulation of the blood, or in the blood-count was observed after an injection. Hæmorrhage in typhoid and in chronic nephritis has also yielded in a similar manner to the treatment. It would seem, therefore, that we have in emetine a useful means of arresting hæmorrhage, being comparable or even superior to supra-renal extract in this respect.

PERSONAL.

H.M. The King, during his tour in the Midlands last week, opened the King Edward Memorial Wing of the Mansfield Hospital and also laid the foundation-stone of the Municipal Tuberculosis Sanatorium and Hospital at Hull. In both cases the ceremony was performed by pressing an electric button.

Col. Sir William B. Leishman, R.A.M.C., and Dr. Louis C. Purser, of Dublin, were among the recipients of the honorary degree of LL.D. of the University of Glasgow last week in connection with the Commemoration Day celebrations.

Dr. Gustav Monod, M.D.Paris, M.R.C.P.Lond., has been appointed Physician to the Vichy Thermal Hospital.

Dr. J. Goodwin Tomkinson has been appointed Lecturer in Diseases of the Skin at Anderson's Medical College, Glasgow.

The Earnshaw Cooper Gold Medal in Dietetics has been awarded to Dr. W. Bamford Winston, M.B., M.R.C.S., L.R.C.P.

Dr. Francis E. Fremantle, County Medical Officer for Hertford, has been chosen as one of the Unionist candidates for Stockport.

Dr. Henry Devine, M.D., B.S.,Lond., M.D.Bristol, M.R.C.P., has been appointed Medical Superintendent of the Portsmouth Borough Asylum.

Mr. P. T. Crymble M.B., F.R.C.S.Eng., has been elected to the new lectureship of Applied Anatomy in the Queen's University of Belfast.

We are glad to learn that Dr. Edwin Rayner, the Treasurer of the British Medical Association, is making a good recovery after his recent operation for appendicitis.

Professor Arthur Thomson, M.A., M.B., F.R.C.S., will preside at the official dinner of the Oxford Ophthalmological Congress at Keble Hall on Thursday, July 9th.

Mr. James M. Graham, M.B., Ch.B., has been appointed University Lecturer on Surgical Pathology in the Department of Surgery in the University of Edinburgh.

Dr. Charles John Shaw has been appointed Physician Superintendent to the Montrose Royal Asylum in succession to Dr. J. G. Havelock, who is retiring from the post.

Dr. W. E. Carnegie Dickson, M.D., F.R.C.P.Ed., has been appointed Director of the Pathological Department and Research Laboratory of the Royal Hospital for Diseases of the Chest, City Road.

On the occasion of the tercentenary of the founding of Groningen University the honorary degree of Doctor of Medicine has been conferred upon Sir Edward Schaefer, Edinburgh, and Professor J. N. Langley, Cambridge.

Dr. T. N. Parry, J.P., of Ferndale, was the recipient the other day of a handsomely illuminated address from the members of the Ferndale Conservative Club in recognition of his services on behalf of the club and to the cause generally.

The Nuneaton town council have voted their Medical Officer of Health (Dr. V. Gray Maitland) an honorarium of £25 for extra work carried out by him in connection with the treatment of tuberculosis at the Tuttle Hill sanatorium.

The following promotions and appointments to the Order of the Hospital of St. John of Jerusalem in England have been sanctioned by H.M. the King:—To be Knights of Grace, Colonel D. J. Mackintosh, M.V.O., A.M.S. (T.F.); Dr. J. Macintyre, and Surgeon-General W. W. Kenny, K.H.S., A.M.S.

Sir Francis Henry Laking, first Bart., G.C.V.O., K.C.B., M.D., LL.D., of 3 Cleveland Row, Westminster, S.W., late Physician-in-Ordinary to King Edward VII., to King George V., and to Queen Alexandra, left estate of the gross value of £25,436, of which the net personalty has been sworn at £20,033.

CLINICAL LECTURE

ON

PERNICIOUS ANÆMIA WITH SPECIAL REFERENCE TO ITS ATYPICAL SYMPTOMS AND COMPLICATIONS. (*a*)

By ALEXANDER GOODALL, M.D., F.R.C.P.Ed

Assistant Physician to the Royal Infirmary, Edinburgh.

Last session we studied a typical case of pernicious anæmia. You may remember that the patient was a man, æt. 35, who complained of muscular weakness. He showed a remarkable degree of pallor combined with a peculiar lemon-yellow colour of the skin. His temperature ranged from 99 to 101. He was breathless on slight exertion, and his pulse was rapid and feeble. Altogether his symptoms were so striking that a senior student could hardly make a wrong diagnosis. Then we examined his blood and found that when a drop exuded it looked pale and watery, the red corpuscles numbered only 900,000 per c.mm., the hæmoglobin percentage was 25. We noted the importance of the relationship of these figures, that is, the colour value of each corpuscle or the colour index. It is obtained by dividing the percentage of hæmoglobin by the percentage of corpuscles. The latter is obtained by an easy exercise in simple proportion or even more simply by multiplying the first two figures of the blood count by 2 (only the first figure when the count is less than one million). In this case $\frac{25}{18} = 1.38$. Now a colour index over unity is practically distinctive of pernicious anæmia. Then we found that the leucocytes were reduced to 3,000 per c.mm., the cells chiefly diminished being the polymorphs. In stained films we noticed the greatly increased size of the red corpuscles, their inequality in size (anisocytosis), some deformity (poikilocytosis), and an undue affinity for the basic stain (polychromasia). Some of the corpuscles showed this polychromasia in a diffuse form, but there were a few in which the polychromasia showed in the form of dots—basophilic stippling or punctate basophilia. Then we noted the presence of nucleated red cells. The majority of these were large cells with a large nucleus showing a very distinct chromatin network. These were megaloblasts. Then we noted a few normoblasts, cells about the same size as the red corpuscles, but with a small densely staining or pyknotic nucleus. I laid stress on three points, the high colour index, the increased average size, and the presence of megaloblasts as definitely establishing a diagnosis which, however, was never in doubt.

What I wish to emphasise to-day is that not half of the cases of pernicious anæmia show the classical clinical symptoms, and that the blood picture, while usually distinctive enough, does not always present such a striking picture as that of the last case. We are fortunate in having illustrations of these features, for there are at present three cases in the ward, none of which were sent in as cases of pernicious anæmia, and in none of which is anæmia the most striking symptom, although in two of them its degree is extreme. I wish to show you five cases altogether. They are all seriously ill, so the simplest plan for all concerned will be for us to go to the ward and see them there.

Case Simulating Gastric Carcinoma and Developing Acute Mania.

This is a married woman, æt. 47, who lives in a historic but not very salubrious part of our city, the Canongate. She says that she was took ill only five days before admission. Her complaint was vomiting and diarrhœa. She was seen by a doctor, who not unreasonably thought that she might be suffering from gastric carcinoma, and sent her to hospital. Her family history is satisfactory. Her social conditions are not what a residence in the Canongate would have implied in the time of the Stuarts. She has apparently never been a bigoted teetotaller, but asserts that for the last eight years her alcoholic refreshment has been limited to "about" one glass of whisky a week. As regards previous illnesses, her left leg was amputated evidently on account of some septic trouble when she was seven years of age. She had bleeding piles for a long time, but was cured by operation many years ago. She has had several attacks of bronchitis. Although she tells us that she has only been ill for five days before admission she had noticed increasing weakness for some months. The vomiting began suddenly. She says that it was coloured like coffee. She then began to suffer from diarrhœa, and says that she fainted. She also complains of some abdominal pain.

Her history is thus every whit as suggestive of a gastric neoplasm as of her real illness, and the diagnosis rests on the results of our examination.

She looks fairly well nourished, the skin is lemon-yellow and the mucous membranes show a marked pallor.

The teeth are decayed and dirty. The tongue is slightly furred but shows none of the glazed, atrophic areas which are sometimes seen. Free HCl is absent in the vomited material.

There is a little epigastric tenderness and some splashing can be elicited after food. The pulse rate is 96. Its tension is low. A soft systolic murmur can be heard at the aortic and pulmonary areas, but there is no cardiac enlargement and no evidence of valvular disease. The chest is rather emphysematous.

Here then is a case where the history is misleading, and the physical examination cannot be said to clear up the matter. Her colour, her weakness, the vomiting, the absent HCl, and the systolic murmurs are found in cases of gastric carcinoma as well as in pernicious anæmia. We know that in many cases of gastric neoplasm there is no palpable tumour. We depend, therefore, on the blood examination for the diagnosis. Her

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(*a*) Delivered to Senior Students of the Edinburgh School of Medicine for Women, in the Wards of the Royal Infirmary, under the charge of Dr. R. A. Fleming.

red corpuscles number 1,500,000; the hæmoglobin percentage is 40, giving a colour index of $\frac{40}{30}=1.3$. Her leucocytes number only 2,000, blood plates, too, are diminished, and the stained films are typical of pernicious anæmia.

Our difficulty disappears as soon as we know about the blood. But this case illustrates another feature of pernicious anæmia. On several occasions she seemed to labour under imaginary grievances, but these did not seem of much importance. But a few nights ago, when the House Physician was making his visit, this good lady suddenly got up and attacked him with her teeth. The handicap of an absent leg and the intervention of the nurse averted a tragedy, and the patient's excitement soon settled down. Her mental condition is, however, not by any means normal. For instance, she tells us that her husband stood all last night outside her window without being allowed to come in, a remarkable feat of devotion, as we must be some 40 feet from the ground up here. With a little encouragement she will readily discuss a number of other delusions.

Case of Cardiac Disease Simulating Pernicious Anæmia.

I wish you just to look at this case. You notice a marked pallor and a very sallow look, which is a little suggestive of pernicious anæmia. She, too, came in suffering from an attack of gastric derangement, and there was marked breathlessness. She is anæmic. Her red cell count is just over three millions, and curiously enough in the first field I looked at in the stained film I saw a normoblast. Her colour index, however, is low and the films are in no way suggestive of pernicious anæmia, while if you examine her heart you will find ample evidence of enough valvular disease to account for all her symptoms.

Case of Pernicious Anæmia with Severe Respiratory Complications and Neuritis.

Our next case is a married woman, æt. 71. She came in complaining of pain and tingling in her fingers and toes, and the diagnosis made outside was neuritis. This is quite correct, but it is not the whole truth. She has a comfortable home. She has brought up a large family, and has had no previous illnesses of importance.

Her present illness began about two years ago, when she suddenly felt numbness in the toes of the left foot. A similar sensation alternating with tingling began in the other foot and in both hands, and has persisted till the present time. The hands and feet then became painful. A variety of remedies were tried, but failed to give relief, and she was recommended to come to hospital.

We find the patient to be only fairly well nourished. She is bright and intelligent. She had all her teeth removed over six years ago. The tongue is clean. There are no signs of dyspepsia. The bowels tend to be confined, but have been kept regular by the use of cascara. There were no special symptoms referable to the circulatory system, but as you now see she is suffering from a considerable amount of dyspnœa, so that she has to be propped up in bed. This is accounted for by the fact that a few days ago she began to suffer from an attack of subacute bronchitis, with a good deal of spasm. This was accompanied by an attack of pleurisy on the left side, which is fortunately subsiding without any effusion. She is now free from pain and is not afraid to breathe freely, consequently you will be able to hear friction very easily as well as ronchi due to the bronchitis. We are particularly pleased that improvement is taking place, because the respiratory complications of pernicious anæmia are very formidable. Many cases die from attacks of broncho-pneumonia, and pleuritic attacks often go on to effusion and empyema. A closer investigation of the nervous system shows little beyond what we have already indicated. The symptoms are mainly subjective, but there is impaired sensibility to touch in both feet and hands. Now, here is a case which was sent in as a neuritis, and which would readily have been diagnosed as a neuritis by anyone. This type of neuritis—numbness and tingling with little objective evidence is, however, fairly common in pernicious anæmia.

Anyone seeing the case for the first time now might readily be excused for ascribing the symptoms to the chest condition and overlooking the blood condition altogether.

The anæmia is certainly not very severe. The red corpuscles number 3,000,000, the hæmoglobin percentage is 68, giving a colour index of 1.1. Films show a definite megalocytosis with a considerable diversity in size. We have never seen nucleated red cells of any kind. The leucocytes number only 4,000 in spite of the inflammatory complications in the chest. As regards the blood you note that I did not mention poikilocytosis. As a matter of fact it is hardly noticable, and this is in keeping with what we find in the chronic and less acute cases. Poikilocytosis may be extreme in the acute cases, but in the chronic cases it is seldom seen. I know you will find a contrary statement in many text-books, but I think that is an error. There is anisocytosis which gives an irregular appearance to the films, and this is put down to poikilocytosis. In fact, I have often been led to a diagnosis of pernicious anæmia by the absence of poikilocytosis in relation to the hæmoglobin percentage. If one finds a hæmoglobin percentage of, say 40, and finds but slight poikilocytosis one has reached a point strongly in favour of a diagnosis of pernicious anæmia. In any other anæmia with a hæmoglobin percentage of only 40 poikilocytosis would be extreme. Then as to the absence of nucleated red cells, one can seldom reckon on finding them when the count is above half a million, and even in much more severe cases in old people they are by no means numerous. But here we have two important diagnostics—high colour index and megalocytosis.

Case of Bright's Disease with Anæmia.

Now I want you just to look at the patient in the next bed. Pallor is extreme. Indeed, of all the cases in the ward I think most of us would say that this one shows the most intense pallor. Yet she is by no means the most anæmic, and her anæmia is not of the most serious type. She has 3,400,000 red corpuscles and 50 per cent. of hæmoglobin. This gives a colour index of only 0.75. The case is therefore one of secondary anæmia, and is due to subacute nephritis. I show you this case because many mistakes are made between these two conditions, and in both directions. One has frequently seen cases with albuminuria labelled nephritis when the underlying condition was really pernicious anæmia. A great many cases of pernicious anæmia die of uræmia.

Case of Pernicious Anæmia Simulating Addison's Disease.

I wish now to refer to a case which I have seen outside in consultation. I am sorry he is not here to show you. Patient was a man, æt. 55, who complained of great muscular weakness, particularly of being easily tired, and of some breathlessness. On examining him I found little except some indication of a slightly shrunken lung at one apex. The most striking feature of the case was a remarkable pigmentation chiefly affecting the abdomen and to a less extent the thorax. I was told that the weakness had lasted for some years, and that it had been ascribed to pernicious anæmia. The blood showed the following:—Red corpuscles, 3,650,000; hæmoglobin, 60 per cent.; colour index, 0.83; leucocytes, 7,200. Films showed very little. Here was a puzzle. The pigmentation suggested Addison's disease, and there seemed to be an old tuberculosis focus in the lung which was in keeping with the possibility of tuberculosis affecting the suprarenal capsules. The blood was not distinctive of pernicious anæmia. On the other hand, the pigmentation had not the typical distribution of Addison's disease, and the opinion of the consultant who had seen the patient in England was not to be taken lightly. The matter could not be decided at the time, but I saw the patient five months later. The count had then fallen to 900,000, the hæmoglobin to 30 per cent., and the colour index had risen to 1.5. In stained films the picture of pernicious anæmia was distinct. Pigmentation is moderately common in pernicious anæmia, especially when patients have been taking arsenic, but it may occur before any arsenic has been prescribed.

Case of Pernicious Anæmia Simulating Acute Yellow Atrophy of the Liver.

This woman is æt. 33. Her history is given in a letter from her doctor, who tells us that the patient gave birth to twins three weeks ago. During the pregnancy she complained of pain in the region of the liver. The labour was not severe, and there was no unusual loss of blood. Ever since, however, she has looked exceedingly anæmic. Once or twice she has had hæmatemesis. Latterly there has been incontinence of urine and fæces. The pulse has been between 120 and 130, and she has complained of pain in the right costal region. She has been rapidly losing weight.

You notice the intense pallor of her lips. There is a yellow colour of the skin and a slight icteric tinge in her conjunctivæ. The patient looks ill-nourished and anxious. The temperature is 99°. The tongue is very dry and coated with a sticky brown fur. The mouth is so dry that she can only speak with difficulty. There is some abdominal distension, so that the liver dulness is diminished. There are hæmic murmurs, and the pulse is rapid and feeble. Respirations are rapid, short and laboured. The alæ nasi move with respiration, but there are no physical signs of disease in the chest. The patient is dull and apathetic, and the pupils are widely dilated. She gives the impression that she is suffering from an intense toxæmia. There has been no evidence of any septic mischief in connection with the uterus. These symptoms gave rise to the suspicion that she might be suffering from acute yellow atrophy, but the jaundice is not nearly intense enough for that.

The red corpuscles number one million. The hæmoglobin percentage is 22, colour index therefore 1.1. The leucocytes number 12,000. The blood picture is typical and megaloblasts are very numerous. She has been treated by transfusion and by stimulants, but I fear that prognosis is very grave. (The patient died two days later.) One cannot resist the conclusion that in these puerperal cases there is some special toxin which attacks the bone marrow. The increase in the number of leucocytes is nearly always present in these cases, and indicates the presence of an acute toxin. The prognosis is very serious, but if the patient can be tided over the acute onset, I think that the ultimate prognosis is much better than in the ordinary case. At any rate I know of two cases at least where the patients were very ill indeed during the puerperium, where the blood picture was a most alarming mixture of megaloblastic anæmia and leucocytosis, and where life was almost despaired of, and yet recovery took place, and there has never been any relapse, although several years have elapsed. Perhaps a word of caution is necessary here. Severe *secondary* anæmia is not very uncommon in the puerperium. This may be due to sepsis, and however unpopular such a diagnosis may be with the practitioner, it may be very important to the patient, since it must be met by vigorous antiseptic treatment. The colour index is less than 1. When nucleated red cells are present they are almost entirely normoblasts until near the end in the fatal cases. Poikilocytosis and polychromasia may be marked features, but the average size of the corpuscles is not increased.

In conclusion, pernicious anæmia is a disease which must be looked for. The diagnosis may be obvious, but on the other hand a large variety of symptoms—vague ill-health, chronic dyspepsia, cardiac debility, pigmentation of the skin, changes in the urine, neurasthenia, neuritis, spinal sclerosis, mental derangement and a host of others may be due to the same condition.

Note.—*A Clinical Lecture by a well-known teacher appears in each number of this Journal. The lecture for next week will be by M. Castaigne, M.D., Physician to the Beaujon Hospital. Subject: "Bronchial Dilatation."*

ORIGINAL PAPERS.

AN INQUIRY INTO A DEATH AFTER TWO INTRAVENOUS INJECTIONS OF SALVARSAN

By Dr. F. J. WALDO,
H.M. Coroner for the City of London and Southwark.
Reported by J. S. WARRACK, M.A., M.D., D.P.H., Barrister-at-Law.

On March 20th, 1914, and on adjournment to April 3rd, 1914, Dr. F. J Waldo held an inquest touching the death of S. W. White.

Mr. F. D. White identified the body as that of his son, S. W. White. Deceased was æt. 23, and in good health up to a year ago, when he was treated by his doctor for " abscess in the passage of the anus," and later of the penis. Deceased was under treatment for nine months. Six months ago he had a " breaking out on the skin," and a month ago a "breaking out on the mouth." Deceased stated to witness that he had not had sexual intercourse. Deceased's doctor advised him to go to St. Mary's Hospital for inoculation treatment, and deceased went there three weeks ago. Deceased had two injections there, at an interval of ten days between them. Two days subsequent to the second injection on March 10th, deceased returned to business. On March 11th, he was looking white and shaky, but clear mentally. When he came out of hospital after the second injection he looked "pale and shaky" and had head pains, had vomited in hospital, could not take his food and felt generally unwell. Witness subsequently saw deceased in Guy's Hospital on March 13th, unconscious. Deceased died on March 14th.

Arthur Turner, a clerk to deceased's employers, deposed that deceased on March 13th, as he came into the office, had fallen down three steps and grazed his arm. Witness was instructed to take deceased to a local doctor. When the taxicab was in Lombard Street, deceased started shaking, and his hands went up and down. Witness thought deceased was in a fit. A constable called by him advised removal to Guy's Hospital. Witness and the constable took deceased there. Deceased was admitted.

P.C. Haswell corroborated last witness, and stated in addition that deceased was unconscious, his eyes were fixed and staring, he was foaming at the mouth, and there was a slight stain like blood on it.

Dr. F. G. Richards, a house physician at Guy's Hospital, deposed. Witness first saw deceased on Friday afternoon about 1.30 p.m. Deceased was unconscious, breathing deeply and noisily There was blood-stained froth on the mouth, the tongue not bitten, no vomiting; pupils widely dilated, both equally; at first reacted very little to light. Deceased's limbs were moving about, and there were convulsions. Witness subsequently obtained information from St. Mary's Hospital about two intravenous injections of salvarsan, .6 gramme each time, as treatment for syphilis.

Cerebro-spinal fluid was let out by lumbar puncture. This fluid was examined. It was clear, and the result of the examination indicated that suppurative and tubercular meningitis could be excluded. The fluid, however, gave the Wassermann reaction. Cerebro-spinal fluid to the amount of three-quarters of a pint was removed at about two-hourly intervals, in large quantities, with relief to the symptoms that had occurred in the interval. Patient died at 3 p.m. on Saturday afternoon, March 14th. A *post-mortem* examination was made by Dr. Herbert French at which witness and his colleague, Dr. Berry, were present.

The *post-mortem* examination showed no marks of violence, but a puncture wound at the bend of the left elbow. The heart was healthy. There were three or four petechial hæmorrhages beneath the pericardium. There was no pneumonia or pleurisy, but multiple diffuse hæmorrhages beneath the pleura and in the mediastinum, blood-stained mucus in the tubes. There were numerous submucous hæmorrhages in the œsophagus, but none in duodenum, jejunum, ileum, or large intestine. The stomach was opened and preserved, but the contents were lost. There was blood-stained fluid in it. The liver and gall-bladder were normal, as also the kidney and ureters, and suprarenal bodies. The spleen was a little enlarged.

The brain showed an extreme degree of bright red injection of vessels in pia arachnoid. The grey matter was also pinkish from hyperæmia. There were no meningitis and no hæmorrhages.

There was a very tiny scar on the penis, not directly pointing to syphilis. There was no syphilitic lesion in any part of the internal organs, nor any external evidence whatever of syphilis noticed.

Witness was of opinion that there were certain risks attaching to the treatment of salvarsan, which was an arsenical compound, and killed the special germ which exists in cases of syphilis. There was danger in the way of giving it. Everything had to be done aseptically, and patients being treated by it should be kept in bed. From witness's knowledge of the symptoms, and the appearances *post-mortem*, he considered deceased died from arsenic poisoning due to treatment by salvarsan. The congestion of the brain, and the hæmorrhages found in the pleura and pericardium, were consistent with poisoning by arsenic. They had only had this one case at their hospital.

Dr. P. H. Berry, clinical assistant at Guy's Hospital, deposed that he was present throughout the *post-mortem* examination, and agreed with what last witness had said. The fluid in the stomach was altered blood.

By the jury: Syphilis could not of itself cause the condition found or noticed in the brain. The condition was that usually found in cases of salvarsan poisoning.

Dr. G. H. Garlick, Resident Medical Officer to the Inoculation Department at St. Mary's Hospital, deposed that he had been five months in that position. He had been told to write to deceased to come for treatment. Dr. Fleming, of his department, did the Wassermann reaction. It was positive. A negative reaction did not always mean "no syphilis."

Witness made the first injection of .6 grammes of salvarsan into the vein of deceased on February 28th. There was no contraindication. Deceased was kept two nights in the hospital. He left quite well, and witness directed him to come again, which he did, on March 10th. The same amount was then injected, and deceased was kept in one night, and directed to come a third time in ten days. Witness next heard deceased was in Guy's Hospital. He had heard the evidence already given, and considered that the salvarsan had acted as a poison and been the chief factor in deceased's death. From what he had read and heard, he considered that the signs found *post mortem* were consistent with poisoning by salvarsan.

Witness was of opinion that the new treatment for syphilis was very efficacious, and more quick than mercury. There was a risk in treatment by salvarsan. Neo-salvarsan was considered by them in their hospital to be more toxic in its effects, and not so efficacious. He would personally tell his patients there was some little risk. He could not say if deceased were told, but he had asked Dr. Fleming, who said it was his habit and custom to warn patients of the risks before injections.

By the jury: He had examined deceased himself, and had satisfied himself that deceased's kidneys were normal.

The Coroner adjourned the inquest, in order that a chemical examination of the viscera might be made, till April 3rd, 1914.

April 3rd, 1914.

Dr. F. Womack, of St. Bartholomew's Hospital, deposed to having received two jars containing viscera for chemical analysis. One jar contained a portion of the liver, one kidney and the spleen. In the other were the stomach and a portion of the small intestine.

It would have been desirable to have had the stomach contents and he would have liked portions of many organs, but owing to the intravenous method of administration there would be less arsenic in the stomach than in the glandular organs. Some arsenic would be excreted by the stomach, and some by the liver and kidneys.

He had duly examined the viscera sent for analysis in this case. The liver contained 28 parts per million of arsenic, or a total quantity in that organ (taking the weight as 55 ozs.) of 0.71 grain. The spleen contained only 0.0072 grain. The two kidneys contained 0.014 grain. The blood which had exuded from these viscera into the bottle in which they were contained showed nine parts per million of arsenic. There were traces of arsenic in the stomach, membrane and intestine. He concluded that in the interval between the second injection and death, a good deal of the arsenic had been eliminated by the kidneys, more than half, less by the liver and stomach. In his opinion the cause of death was acute arsenical poisoning resulting from the injections of the organic compound known as salvarsan.

There had been very few deaths from salvarsan poisoning in England, but many more abroad. There was a close accord of the symptoms in this case with those recorded in available literature. This case was the first of the kind witness had had to deal with as analyst. He should say there had been 150 fatal cases since the end of 1910, when the drug was introduced, throughout the whole world. The majority of deaths were due not to arsenical poisoning, but to maladministration, or bad *technique*. There had been extremely few cases in England. Arsenic was a very potent drug, and very toxic, and there seemed to be an idiosyncrasy—an unusual susceptibility to the drug—which some people showed. Witness thought this case was undoubtedly one of idiosyncrasy. The non-poisonous character was probably due to non-solubility in the blood in some; in others the solubility in the blood was greater. In the latter cases the abnormality of the blood, this special susceptibility was not to be anticipated. Thus the effect would be that of an overdose.

There were two theories: (1) Ehrlich, Spirilla killed in the blood set free endotoxins. (2) Major Gibbard, A special susceptibility to the drug.

There had been cases with symptoms similar to this one, such as cloudiness of mind, and indistinctness of speech. These cases usually occurred after the second injection. Arsenic was a cumulative poison, and the drug was not completely eliminated from the system before the second injection was given. There might be more sensitiveness to the second injection.

Neo-salvarsan was given at St. Batholomew's Hospital almost invariably. It was as efficient and efficacious, more soluble. It could be given more concentrated. It was less dangerous, troublesome, and took less time. There had been 750 cases there without any death, or any untoward symptoms.

Ehrlich had mentioned 10,000 cases, with four deaths and three of these were in a very serious state and likely to die apart from arsenic.

The salvarsan treatment was efficacious, but he believed the new treatment was more efficacious, and had almost replaced salvarsan. Witness did not think .6 gramme an overdose. This was an ordinary dose, unless contra-indicated by symptoms such as in the kidneys.

Mercurial treatment was carried on afterwards, nine or ten repetitions spread over more than three months. This treatment was largely given in the Army and Navy.

The probability was that deceased had four grains in his body. In the organic compound the arsenic was less toxic than in arsenious oxide. The lethal dose of arsenious oxide by the mouth he had known to be 2 grs. only.

If arsenic was taken by the mouth into the stomach, the effects were mostly found in that organ and in the intestine. When administered intravenously, petechiæ and hæmorrhages would be found.

Serious symptoms would appear a day or two after the second injection, such as paralysis, mental symptoms, indistinct speech, sweats, vomiting, fits, and might resemble meningitis. It was most important that the salvarsan should not be dissolved more than the minimum amount of time. It underwent oxidation. It should be made up immediately before use. And as to the *technique*, the distilled water and salt solution must be used quite fresh and the salt be chemically pure sodium chloride. Certain special skill was required in the administration and by qualified medical men only.

Witness agreed with the Coroner that the operator at first should have some more skilled person present. The treatment was expensive, and the Wassermann test should be performed beforehand.

Witness had read the depositions and thought that death was due to an unforeseen accident. He considered the injections were given in a skilful and proper way.

Salvarsan was a patent. It contained 30 per cent. of arsenic, which was the poisonous element. Benzol was also a constituent.

In reply to Dr. Richards, who asked whether witness thought that arsenic as arsenic, or that salvarsan as salvarsan caused death, witness replied that he attributed death to the organic compound rather than to the arsenic, but in chemical analysis only arsenic was recovered by the chemical tests. Salvarsan was one of the most valuable medical discoveries in recent years.

The medical witnesses agreed that death was due to the poisonous effects of the compound salvarsan rather than to the arsenic.

The learned Coroner, in summing up, recapitulated the evidence, pointing out to the jury that they had to determine how deceased came by his death. They might have to decide as to whether there was any neglect by some person or persons, but there was clearly no evidence of negligence. The drug was a useful one. There were no contra-indications to its administration. It was given in a very careful and skilful manner by an experienced medical man.

A verdict of death by misadventure from acute poisoning consequent on two intravenous administrations of the compound known as salvarsan was returned, the jury adding that the salvarsan was skilfully given, and that deceased was properly treated at St. Mary's and Guy's Hospitals.

LITTLE'S DISEASE AND ITS SURGICAL TREATMENT.

By M. SAVARIAUD, M.D.,
Surgeon to the Trousseau Hospital, Paris.

[Specially reported for this Journal.]

By the term "Little's disease," or, rather, "Little's syndrome," we generally understand a congenital form of spasmodic paralysis especially prone to attack the lower limbs, in other words, paraplegia, associated with spasm and contracture present at birth. It may happen, as with so many other congenital affections, that the symptoms are not very striking at birth; indeed, it is rare that the diagnosis can be made at that stage, since the newly-born, especially those born before time, are normally rather stiff. It is only after a time that the mother or the nurse is struck by the hindrance which the contractures entail in dressing and washing the infant.

The rigidity is most marked in the lower limbs, which are contracted either in extension or flexion. but always in adduction, so that the two limbs cross each other. If we try to separate them the infant resists and screams. As a rule the child cannot sit up since it is "all one piece." The disease may be limited to the lower limbs, but in some instances the upper limbs are affected, usually one more so than the other. The forearms are bent at a right angle, the elbows brought close to the trunk, the hands in forced pronation, the fingers more or less distorted and unable to grasp anything. The child "speaks through the nose" and is barely intelligible. There may be squint and disturbances of deglutition. The contracted muscles are also paralysed, though there is, as a rule, more contracture than paralysis, but the contrary is sometimes met with.

It is met with in every degree of severity, according to the extent and severity of the paralysis and the degree of cerebral involvement. The mildest form of the disease is characterised by mere difficulty of walking due to contracture of the muscles of flexion and adduction. The little patients hop along on their toes, with the knees slightly bent and knocking against each other in walking, the active limb describing a segment of a circle round the other limb. In these cases the upper limbs and the intellect are unaffected.

In a second degree walking may still be possible, but it is difficult, and one arm is usually affected. In the third degree walking and the erect position are impossible, and sitting is only practicable by the aid of sundry devices, as for instance strapping the trunk to the back of the chair. In the fourth degree both the upper and lower limbs are paralysed and contracted, and the sufferers are quite impotent, being unable to feed themselves or to hold a pen, and intelligence is at a very low level. In the fifth degree the victims are nothing more than paralytic idiots, and the congenital contracture plays quite a subordinate part in the clinical picture.

The prognosis varies greatly according to the extent and the severity of the lesions. In a certain number of cases the contractures diminish to some extent, constituting an improvement or even spontaneous recovery. Other cases remain stationary or gradually become worse. The less the intelligence is affected the greater the hope of improvement.

The pathogenesis of the disease is still ill-understood. There is reason to believe that it is not unique, and that among the patients who display Little's syndrome we ought to deduct a certain number of cases of Little's disease, properly so called.

Little's disease, properly so called, is characterised by premature birth, rigidity of the limbs, and spontaneous improvement. This affection seems to be consequent upon arrested development of the spinal cord, more particularly to delay in the myelinisation of the pyramidal tract. This variety, however, is very rare, indeed its existence is denied by some.

Alongside this type of Little's disease are innumerable forms of spasmodic paralysis, more or less congenital, due to cerebro-spinal lesions consequent upon a laborious confinement. The obstetrical traumatism acts by compression, constriction and asphyxia, giving rise to cortical hæmorrhages followed by sclerosis and secondary degeneration of the pyramidal tracts. Syphilis and alcoholism on the part of the parents play a predisposing *role*.

We now come to the treatment of these subjects, and *inter alia* the question arises, What can surgery do for them? From this point of view our division of the cases into several categories comes in useful. Let us commence by discarding the really desperate cases and the very mild cases, and then we will see what can be done for the others.

Desperate Cases.—The degree of contraction and the multiplicity of the lesions no doubt render treatment difficult, but what really makes the case hopeless is not so much the state of the limbs as that of the brain. With a normal or approximately normal brain we are entitled to hope much; with a greatly damaged brain it is better to hold our hands.

Very Mild Cases.—Here is a child whose only trouble is that he has a rather hopping gait, his weight only bearing on the anterior heel. Now simple tenotomy of the tendo Achillis is here all that is required to restore equilibrium.

Medium Cases.—These are more difficult cases. The patients walk only with the greatest difficulty, propping themselves up by leaning on the furniture, or indeed they may not be able to walk at all. The legs are crossed in bed and are permanently displaced, the knee is bent, the feet are in varus equinus or valgus, in short no normal prop is available.

In such cases the first thing to be done is to straighten the limbs in order to provide a normal prop. Certain tenotomies or muscle elongations will be necessary, after which the limbs are maintained in hyper-correction for six or seven weeks. In the lower limb, for instance, we shall perform tenotomy of the tendo Achillis elongation or tenotomy of the hamstrings and adductors and of the tendons inserted on the iliac spine. The patient is then placed in a plaster apparatus for a couple of months or so with the legs well separated in extension and external rotation and the feet in hyper-extension.

If, after this operation, the feet still tend to become deviated, the tendency must be overcome by transplantation of tendons. When the limbs are in good position it remains for us to train the patient in the movements required for walking. We may commence by making him execute simple movements in bed—raising the limbs, flexion, &c. Then he is put on his feet and encouraged to try to walk, movement by movement, the weight of the body being supported by assistants or parallel bars.

Two things may now happen. In the first the spasm may be slight, or at any rate not extreme, and with time one may hope that it will diminish. In this event all we have to do is to continue the course of training with all necessary gentleness and patience.

In the other case we find that the spasmodicity and contracture are such that we make no headway. If this be so, rather than give up the case, we should be justified in performing Foerster's operation, which aims at diminishing the reflectivity of the spinal cord by dividing a certain number of the sensory roots of the lumbar and sacral nerves ($L_2L_3L_3S_2$) inside the sheath of dura mater. No doubt this is a big undertaking, but it is so effectual that we must not hesitate to have recourse thereto in cases in which it is worth while. For that matter the gravity of the intervention may be reduced by attacking the nerves of the caudus equinus where they come off opposite the lumbar enlargement. This greatly simplifies the operation. I performed this operation on a child of seven in whom all the ordinary modes of treatment had failed, and the improvement, which so far had been *nil*, on account of the excessive reflectivity of the cord, made rapid progress after the operation. The spasmodicity of course did not entirely disappear, but it did so to the extent of at least three quarters forthwith, and has gone on diminishing since. A year has now elapsed since the operation, and thanks to tenotomies, transplantation of tendons and patient re-education, the patient is beginning to walk, very imperfectly no doubt, but still in an encouraging way. By holding on to articles of furniture he can find his way round the room. For a normal child this would not be anything to be proud of, but it is a great deal for a child who had never left his bed. I hold that Foerster's operation has been of the greatest benefit, and that in presence of such a terrible disease we must be satisfied with having accomplished thus much.

FIVE CASES OF STRANGULATED HERNIA IN INFANTS, WITH AN ACCOUNT OF A RAPID AND EFFICIENT SURGICAL PROCEDURE.

By JOSEPH BOYD BARRETT, M.D., B.Ch.,
Assistant Surgeon, Children's Hospital, Temple Street, Dublin.

I have adopted, and intend to practise, a procedure for the cure of strangulated hernia in infants, which differs considerably from the ordinary routine operation. In brief, I think it is unwise and quite unnecessary to isolate and ligature the delicate sac of a hernia in an infant, a procedure which must involve injury to the very delicate spermatic cord. Further, the suturing of the external oblique fibres forming the external ring is also omitted. It is only necessary to define the internal oblique and conjoined tendon and to suture both to Poupart's ligament, and then carefully to approximate the skin, preferably by sub-cuticular silk-worm gut. This can be done very rapidly.

The operation has certain merits. It is a neat operation; it involves no injury to the cord; there is no mauling of the tissues. The presence or absence of the sac, and the suturing, or not, of the thin and weak fibres of the external oblique have no influence on the return of the hernia. If the internal oblique and conjoined tendon are properly sutured with medium silk sutures to Poupart's ligament the hernia cannot reappear. The cure is a permanent and radical one. The neatness and quickness of the operation are of the utmost advantage to the child. There is no post-operative shock and no possibility of damage to the cord or testicle.

What happens to the sac? I believe it disappears. When one remembers that the tunica vaginalis is patent at birth and communicates with the peritoneal cavity of the abdomen, there is no reason to expect that an empty sac will persist, and the opening made in it for the reduction of the intestine prevents the accumulation of fluid.

It may be argued that when one has a finger in the sac it is very little trouble to "wipe off" with a sponge the coverings and the spermatic cord. This is not denied. It is not a matter of difficulty, but it is unnecessary and must involve, however carefully accomplished, some injury to the cord. That it does so, even in cases that are not strangulated, is evident from the œdema of the testicle which so often follows this procedure in children. It is the most tedious part of the operation. It is dangerous to do it quickly. It involves waste of precious time. It is of no advantage.

The ætiology and treatment of strangulated hernia in infants are very cursorily dealt with in the text-books. It is usually stated that they differ in no matter of importance from similar conditions in adults. There are, however, many differences:—

(1) Strangulation in children usually occurs in large hernias. In adults the opposite is almost the rule, except in elderly subjects with large scrotal or umbilical herniæ.

(2) Hernias in infants never contain omentum. The omentum in a child is small, and its fat contents quite insignificant and without bulk. (It is owing to the small size of the omentum in young children, and its inability to wall off an abscess that appendicitis in children demands immediate treatment.)

(3) Adhesions in the sac in a child are extremely rare. I have only once seen adhesions, and they occurred in a remarkable case of congenital hernia on the left side, in which I found the appendix attached by two bands to the left testicle. It must not be inferred from this that manipulation may be used indiscriminately in attempts to reduce a strangulated hernia in an infant. Such a procedure usually results in the formation of hæmatoma in the bowel wall; and, further, owing to the rapid filling of the sac of a strangulated hernia in an infant with serum, taxis can have no effect in reducing the contents. When fluctuation is present, manipulation can only do harm; an operation is imperative. In none of the cases under my care was it possible to reduce the intestinal contents until the internal ring was enlarged.

(4) In infants and young children all inguinal herniæ are oblique. A direct hernia is an impossibility. This is of the utmost importance to remember when brought to deal with a strangu-

lated hernia in an infant, because the internal ring must be opened in an outward direction. (This is best done by a Lane's scissors.) There cannot be a direct hernia in infancy because the inguinal canal has no length. The external and internal rings are superimposed, almost completely. As the pelvis widens the rings separate until the adult proportions are reached. When the two abdominal openings are almost superimposed, a hernia must pass through both. This being so, the internal ring may be divided in an outward direction without fear of wounding the deep epigastric artery.

(5) The necessity for immediate operation and the importance of a rapid and neat operation. These are only comparative differences from the treatment of strangulation in adults. They are, however worthy of emphasis. An immediate operation is necessary in order to avoid the possibility of having to resect a gangrenous portion of intestine, a proceeding usually attended with fatal results in infancy. The importance of a neat and rapid operation is greater in children owing to the danger of post-operative shock, a condition easy to avoid but difficult to treat.

(6) There are two points worthy of consideration as regards the skin incision—the position of the incision and the suturing of it.

The incision should be kept as high as possible. This is best accomplished by having the external half parallel to Poupart's ligament and the internal half horizontal above the level of the penis. It well repays to take the utmost care with the suturing of the skin wound. It is vain to rely on dressings to keep the wound clean, and owing to the habits of infants the edges of the wound should be approximated with the greatest care. If this be done and the incision be made at a high level the chances of rapid healing are increased.

The ages of the cases under my care varied from six months to one and a half years. They all recovered from the operations without any post-operative shock. In one case, the hernia recurred; it was that of an infant, æt. 1½, who had developed strangulation when suffering from a circumcision which had become septic. The hernia wound became infected, and I had subsequently to remove the deep sutures. The child is now quite well and an operation will be done later for radical cure.

The hernias were all of the acquired variety. (Congenital hernias form a very small proportion —8%—of hernias in children.) They were all large in size, and contained small intestine. The duration of strangulation could not be accurately determined in each case. One gave a history of eight hours, another of twelve, and another of twenty-four hours. In no case was the bowel gangrenous; nor did the constricted portions give any cause for alarm when examined. The normal appearance of the bowel, apart from hæmatomata which had developed, rapidly returned when douched with hot saline.

The duration of the operations from the time of the first incision varied only with the delay in douching. The shortest time was nine minutes, and the longest fifteen minutes. The operations were performed in the Children's Hospital, Temple Street, Dublin, and I am indebted to Dr. M. F. O'Hea and Dr. P. T. O'Farrell for their able assistance in most of the cases. The anæsthetic used in every case was ether given on an open mask.

In order to shorten the time of the operation, the anæsthesia is not begun until everything and everyone is in readiness, even the needles being threaded. The first portion of the operation, up to the examination and return of the intestine, does not differ from that usually performed for adults, with the exception of the method of enlarging the internal ring.

When the bowel is returned, the internal oblique and conjoined tendon, and Poupart's ligament are rapidly defined by blunt dissection. A good portion of muscular belly is then united to the full depth of Poupart's ligament, over the sac and its coverings, by usually three medium silk sutures. The skin edges are then rapidly and carefully approximated by fine silkworm gut (preferably a sub-cuticular suture) and the operation is complete.

This operation can be done very rapidly and neatly, and is quite efficient. The tedious and unnecessary portions of the ordinary operation are omitted. The external oblique in an infant is composed of very feeble and delicate fibres. Their approximation is superfluous. They have no strength, and can offer no resistance.

The sac in an infant is an extremely delicate membrane. The ligaturing of the sac is of no avail if the conjoined tendon is not united to Poupart's ligament. If the latter structures are carefully approximated the sac may be left; for no hernia can possibly return, and, furthermore, by this method there can be no damage to the cord or testicle, the shock which is attributed to manipulation of the cord is avoided, and there is a valuable saving of time. This simple operation does not exhaust the patient, and if it prove as efficient as I confidently anticipate, I may perhaps be pardoned for recommending it for trial.

OPERATING THEATRES.

HAMPSTEAD GENERAL HOSPITAL.

Fractured Skull.—Mr. Jackson Clarke operated on a female child, æt. 2, who had fallen out of its mother's arms at the top of a stairway, falling at the bottom of the flight on its head. When the patient reached the hospital she was conscious, and had paralysis of the right hand and forearm. There was a hæmatoma-like swelling crossing the vertex from ear to ear, and on palpating this a fissure in the skull was felt.

The child was anæsthetised, and an incision made corresponding with the extent of the swelling. This revealed a fracture of both parietal bones, and gave vent to a quantity of blood and a considerable amount of brain matter in small flocculi, the dura mater being torn in the whole extent of the fracture; The latter was quite half an inch in width, and it expanded and contracted with the respiratory movements of the child. Two drill holes were made, one on either side of the fracture, and a silver wire passed and twisted; this brought the bones into firm apposition. The skin wound was then closed.

The patient recovered from the anæsthetic and made an uneventful recovery. In the course of the four weeks following the operation the paralysis of the right hand and forearm gradually diminished. This improvement has continued up to the present time, some eight months after the operation, the child using its right hand freely, but the grasp is still slightly weaker than that of the left side. Mr. Clarke said that he estimated the amount of brain lost was fully half an ounce, most of it appearing to come from the left parietal lobe. It remained to be seen, he pointed out, whether any subsequent trouble in the form of Jacksonian epilepsy would ensue. The child is being kept under observation.

Dislocation of the Left Os Innominatum.—The same surgeon operated on a middle-aged man, who, on alighting from an omnibus, was knocked down by a rapidly moving car, which passed over his body. On reaching the hospital he was found by the House Surgeon, Mr. G. B. Truter, to have a wide interval between the two pubic bones in front, and also a wide separation at the left sacro-iliac synchondrosis. The general condition of the patient was good, there being no shock. Evidence of extravasation of urine rapidly appeared beneath the deep layer of the superficial fascia of the abdomen and into the dartos tissue of the scrotum, the latter becoming swollen and dark-red in colour. A five-inch median incision was made, the lower end being just above the root of the penis. The tendon of the left rectus muscle was found to be detached near its insertion; the tendon of the right rectus was partially torn, and both conjoined tendons were also torn from their attachments. A rubber catheter was passed fairly easily into the bladder. The bladder was incised and explored and found to be intact. A hole was then drilled through each pubic bone, and a very stout silver wire was passed, and this was drawn taut and twisted, bringing the two pubic bones into close apposition. A rubber catheter was tied in, and a large rubber drain placed in the bladder wound. The incision was then closed except around the bladder tube and also where the silver wire protruded, this last being left long. A second incision was made into the lower part of the scrotum. The patient rallied well from the operation, his pulse being good throughout. An aspiration syphon was introduced into the bladder tube, and by this means the bladder was kept empty. After six days the larger tube was removed, the smaller one of the syphon apparatus being left in the bladder

Mr. Clarke said that it was evident that there was rupture of the membranous urethra in this case, and time must be allowed for it to heal before the bladder drainage could be discontinued; for this he would allow at least fourteen days. When the bladder wound was healed and the urethra working well the silver wire would be either cut short at the surface of the pubic bone or, if it were not firmly healed into the bone, it would be removed entirely. As to the sacro-iliac synchrondrosis, if any weakness should remain there, Mr. Clarke contemplated uniting the bones by one or two large screws at a later date.

TRANSACTIONS OF SOCIETIES.

THE NEW LONDON DERMATOLOGICAL SOCIETY.

Meeting held Thursday, June 11th, 1914.

Mr. T. P. Beddoes, F.R.C.S., in the Chair.

Dr. H. C. Samuel showed (1) case for diagnosis. The patient, a middle-aged man, came two hours ago with an eruption of papular nodules and pustules, some of which were aggregated on the neck. There were discrete lesions of similar nature on the face and forearms, and a semi-purpuric one on one leg. He considered it a drug eruption, possibly iodide, though there was no history of that having been taken nor was any found in his urine, which had just been tested. He had recently been "having medicine from a doctor for sore throat, which had a bitter taste." It had come out too suddenly for it to be syphilis. He had not yet learned the result of the Wassermann test. It might be a toxic erythema.

No member ventured to give a positive diagnosis, though that of a drug eruption was largely favoured.

(2) Case of Brocq's parapsoriasis *en plaque*.

He said Brocq originally described the condition as "erythrodermie disseminée pityriasique." It was very resistant to treatment. This patient, a man, had had the condition four years. One could see some sharply defined macular oval patches, somewhat resembling seborrhœa and slightly scaly with no infiltration. Anti-seborrhœic treatment had no effect on the lesions. Sometimes the condition was known as xantho-erythrodermia persistans of Crocker. This case differed from those hitherto described in that pruritus was marked. The patient was being treated chiefly for the intense itching, and X-rays seemed to have benefited the pruritus. The suggestion had been made that it might be a premycotic condition, but there was no infiltration and the sections did not show evidence of premycosis; there was only dilatation of the endothelial blood-vessels. The Kromayer lamp (mercury vapour) had done most good. He thought that the term parapsoriasis had been used rather loosely. The case shown to-day was only one variety of the condition. The cases which had a chronic resistant scaly erythrodermia and did not respond to treatment had been grouped together and, following Brocq, had been called parapsoriasis. But some distinction should be made. What were the lesions of parapsoriasis understood to be? He thought they were the very chronic lesions which resembled either seborrhœic dermatitis, psoriasis, pityriasis rosea, or the pre-mycotic stage of mycosis fungoides, or a fading lichen planus. This present case much resembled seborrhœic eczema, but there were some cases of this lichenoides type in which one could not decide whether the condition were lichen planus or psoriasis. The Kromayer lamp was used here not so much with the idea of attacking the parapsoriasis itself, but in order to control the intense pruritus which, as he had said, was such a marked feature in this particular case.

Dr. G. W. Sequeira said he had seen many cases of parapsoriasis, but it was the first he had seen in which there was much itching. He would defer his diagnosis for a time, as the possibility of the case being an early stage of mycosis fungoides had to be considered.

Dr. J. Galbraith said parapsoriasis usually itched more or less. Several such cases which he had seen reacted well to X-rays—half a pastille dose once a fortnight, or a full pastille once a month, repeated three or four times if necessary. Sections of parapsoriasis showed thinning of the prickle layer, and a characteristic feature was the almost absence of the interpapillary processes and the stretching out of the papillæ to form a wavy line with the epidermis.

Dr. W. J. Midelton said the case was of interest to him because of the treatment—*i.e.*, the profound hyperæmia caused by the Kromayer lamp. It had been thought by some that there was some specific action exerted by the ultra-violet rays, but he regarded it from the standpoint of the hyperæmia caused thereby. Enough was not yet known as to the exact mechanism called into play when hyperæmia was produced, but most people acknowledged its benefits, whether produced by a mustard plaster, or by a lamp costing £25.

Dr. J. D. P. McLatchie showed a case of pityriasis rosea in a well-developed young man.

Dr. Samuel said he thought all would agree that the condition was pityriasis rosea, with which the distribution corresponded. This distribution, he considered, must be determined by the vest, or other article of clothing next to the skin, and he had often noted its association with pityriasis capitis. This patient said he had always "a scurfy head." Usually it was said not to have any connection with seborrhœa.

Dr. C. G. Mack (for Dr. Vinrace) showed a case of recurrent alopecia, on both occasions in connection with tinea tonsurans.

Dr. Samuel did not doubt the diagnosis, but thought it was not impossible that the alopecia might have been due to ringworm. He saw a case in point last week, when three young sisters came up. One had a typical kerion, due to the ectothrix. The second sister had ordinary ringworm, also due to ectothrix. The third sister had a patch of clinical alopecia areata, but in view of the other cases a very careful research was made, and one stump was found which, on treatment with potash, revealed typical ectothrix.

Dr. Galbraith said he did not think there was any connection between ringworm and alopecia, but in all the cases one would find the acne bacillus, though sometimes in the band form in children it is absent. Some cases had, in his hands, responded remarkably well to vaccines when ordinary treatment had failed. Excluding the cases in which a nervous lesion could be invoked, he thought a connection could be traced in all cases of alopecia with the acne bacillus. And, in respect to the present case, recurrences were common.

Dr. SEQUEIRA said some years ago he showed a couple of cases at the late Sir Jonathan Hutchinson's clinic of typical alopecia areata, and Sir Jonathan said there was no doubt that the wife caught the condition from the husband, probably through leaning back in the same chair. There were no signs of tinea; it was a typical alopecia areata.

Dr. NORMAN MEACHEN showed (for Dr. Alfred Eddowes) (1)

A CASE OF GUMMATA OF BOTH ALÆ NASI

in a female, æt. 50. Before coming under his care the patient had been treated by X-rays, probably under the impression that the disease was lupus vulgaris. After a month's treatment by mercury and iodide by the mouth there was some improvement, but as the mouth was sore the amount of mercury by the mouth was diminished, and she was treated by suppositories containing mercury, according to Dr. Sabouraud's suggestion recently published.

The CHAIRMAN said there was no record of the state of the septum. Gummata of the muco-cutaneous junction lasted a long time. In favour of Dr. Eddowes' diagnosis was the fact that the condition had yielded to the antisyphilitic treatment, and it did not yield to the X-rays. There was no indication of tubercle. But the treatment had been rather short for such improvement in tubercle—namely, a month's treatment with mercury and iodide. Treatment of rectal syphilis by suppositories was a good method, the average dose being 15 grs. of mercury a day.

(2) A case of eczematised impetigo—or chronic staphylogenic impetigo—in a gardener. The condition began as a small abscess which had been poulticed. Such cases appeared to be common this year.

Dr. GALBRAITH said the case might be called an eczema in the ordinary sense, but it seemed to be a pyogenic infection. It was likely that staphylococcus was the causal organism. It was the kind of chronic eczema in which a vaccine seemed to act like magic; half-a-dozen injections or so of an autogenous vaccine would probably clear it up. Locally he would use only a mild antiseptic ointment, such as weak ammoniated mercury.

(3) Case of lupus erythematosus of the face in a girl æt. 13½ years, of three years' duration. He diagnosed ulerythema chiefly because of central atrophy, She also suffered from chilblains during cold weather. When a persistent lesion for over a year occurred on the face, whether of a child or an adult, and it looked seborrhœic, one had to be careful about calling it eczema. The child's father died of phthisis.

SPECIAL REPORTS.

ROYAL COMMISSION ON VENEREAL DISEASES.

AT the forty-third meeting of the Royal Commission on Venereal Diseases evidence was given by Dr. J. J. Pringle, physician in charge of the skin department of Middlesex Hospital and president of the Dermatological Section of the Royal Society of Medicine. He stated that of 36,151 cases of skin disease dealt with in the out-patient department of the Middlesex Hospital during the last 25 years, 1,853, or rather over 5 per cent., presented indubitable evidence of syphilis. This figure did not represent the number of patients who had attended the hospital for syphilitic manifestations, but only those who had been referred to the special department as suffering from some affection of the skin. Of the 1,853 cases of syphilis, 925 were males and 928 females. Dr. Pringle thought that this apparent equality of incidence in the two sexes was due to the fact that men do not willingly attend hospitals during working hours, except for diseases which in their opinion threaten life or cause grave discomfort or pain. On the other hand, anything causing disfigurement impelled women to seek medical advice. Of the 1,853 cases of syphilis already mentioned, nearly 24 per cent. were foreigners.

Dr. Pringle stated that he could not see his way to support or advocate any measure of compulsory notification of venereal disease. The medical profession was, he thought, practically unanimously opposed to it, and even if made confidential its effects upon the public would be merely to drive them to seek treatment from unqualified persons.

His experience both in hospital and private practice convinced him that much of the syphilis existent in England was of foreign importation. He believed that a considerable number of prostitudes left their own countries because they were unable to ply their trade there, and came over to England and spread the disease in this country. It was important that this matter should be further investigated and that steps should be taken to deal with it.

THE CARE OF CHILDREN UNDER SCHOOL AGE.

THE last of three lectures given under the Chadwick Trust was delivered at Leeds Town Hall on Saturday, June 27th, by Dr. Joseph Cates, Medical Officer of Health, St. Helens, who outlined a comprehensive scheme of public health reform. He said that there were already far too many agencies attempting to deal with the health of the community. Efficiency, economy and public comfort demanded that all matters directly relating to public health should be administered and controlled by one central department acting through the councils of the counties and county boroughs. Health authorities would then for the first time be in a position to grapple with the beginnings of disease, and as necessity arose to afford assistance they were now powerless to provide. Maternity centres should be established throughout the country by public health authorities. To these centres expectant mothers would come for help and advice, and in order that a knowledge of suitable cases might be obtained, midwives should be required to notify to the medical officer of health their engagement to attend an expectant mother.

The maternity benefit provided by the National Insurance Act should be replaced by an adequate grant to every mother coming within a certain income limit, and the administration of the benefit should be carried out by the health authorities. In conjunction with the centre should be available pre-maternity and lying-in wards for patients, married or single, who appeared to require institutional treatment. Infant consultations and baby clinics were urgently needed for the examination and treatment of children under school age. The lecturer said that where the home circumstances were unfavourable or the mother was industrially employed, the crêche, and later on the nursery school, would train and protect the growing child.

Referring to the establishment of municipal milk depots, Dr. Cates emphasised the advantages to be gained from the use of dried milk. The experience of Leicester has shown that it was easily digested, less liable to contamination in the home, economical in use, and could be extensively employed with the most successful results.

Alluding to the difficulty encountered in obtaining early treatment of disease, the lecturer said that it was high time that the medical benefits of the National Insurance Act were extended to dependents of insured persons, and the scope of the benefits were made to include the treatment of conditions such as decayed teeth and defective vision. The prevalence of venereal disease, its importance to public health, and the tremendous expenditure incurred in the maintenance of lunatics, demanded that by a vigorous campaign local health authorities should attempt to eradicate the disease. Free facilities should be provided for diagnosis and efficient and prompt treatment.

CORRESPONDENCE.

FROM OUR SPECIAL CORRESPONDENTS ABROAD.

FRANCE.

Paris, June 27th, 1914.

Forms of Mental Anorexia.

Anorexia is less a malady than a syndroma, common to several affections. Its clinical forms are diverse.

Hysterical Anorexia.

The most frequent form, described years ago by Gull under the name of hysterical apepsia, is anorexia observed in hysteria and accompanied by various troubles of the digestive tract (pain, repeated vomiting, hæmatemesis, constipation or diarrhœa).

It belongs exclusively to the female sex and frequently develops at the age of puberty. It is this form in which, said Gilles de la Tourette, "the patient will not eat because she will not eat." There is a cause that provokes this refusal to take food, generally a fixed idea, but difficult to diagnose.

Hysterical anorexia in its simple form gets well unless abandoned to itself, but in certain patients the stomach remains delicate for years if not for life.

Anorexia of Puberty.

All young subjects suffering from anorexia at the age of puberty are not hysterical, hence a syndroma observed in young girls having in their ascendants some mental disturbance (alcoholism, phobia, mental depression, etc.) These subjects present no signs, physical or mental, of hysteria. Unlike their companions, they are grave, object to noisy amusements, are listless, religious and sometimes mystic; they appear to be older than their age, and, at the moment of puberty, are observed to be sickly, their intellectual faculties diminish and are incapable of any effort even to mastication. At the same time they complain of painful sensations in the epigastrium, although the region is not tender to pressure.

Outwardly these patients present particular characters, the skin is dry, the nails brittle, the hair falls. To this may be added a change in the disposition, which becomes irritable with intermittent attacks of despair, and in exaggerated cases, with ideas of suicide.

The prognosis of this condition is grave. Relapses are frequent, and in some cases the patient falls into a chronic state that may terminate in death.

Neurasthenic Anorexia.

Anorexia can be met with in certain neurasthenic patients who from infection or grief producing dyspeptic troubles, diminish progressively their food and study the diverse sensations of their stomach. They are seized with a regular phobia of food and put themselves on the most reduced diet, they lose several pounds in weight, but are easily cured by isolation and psychotherapia.

Hypochrondriac Anorexia.

In a superior degree, young nervous subjects with some hereditary antecedents lead themselves to believe, after one or several attacks of painful digestion, that they are going to be afflicted with ulcer or cancer of the stomach. Their mind is always pre-occupied with this eventual misfortune, they diminish their food, analyse their sensations and masticate conscientiously even to excess.

Anorexia of Melancholy.

This form is observed in young subjects who have undergone a change both as to character and disposition; they renounce the company of their friends, seek solitude and pass their time in complete inactivity. They restrain eating because they have lost taste for everything. No happiness exists for them, they have no desire to speak, to eat or do anything. This condition may last for months and be succeeded by a form of depressive mania with intermittent attacks of agitation.

Anorexia of Early Dementia.

Fear of being poisoned, mortification for some imaginary fault, fear of eating dangerous microbes, of catching the pretended malady of the person who prepares their food, are among the chief causes observed in persons suffering from mania.

Anorexia resulting from the different mental conditions described, says Dr. Feuillade, is about the same in every case. The consequent emaciation provokes the same cachexia with pallor of the skin, falling of the hair, coldness of the extremities, obstinate constipation and all the signs accompanying accentuated denutrition. The menses are suppressed and frequently signs of tuberculosis are observed. On this point it would be interesting to know if tuberculosis is the cause or the consequence of anorexia. It is logical, however, to suppose that the organism of such patients being in a state of denutrition bordering on cachexia, furnishes a favourable soil to the development of tuberculosis.

Anorexia of hysteria can be cured by isolation of the patients; the same treatment applies to persons suffering from neurasthenia and melancholia. But anorexia of hypochondriacs and certain melancholics is modified by the affection it accompanies.

The prognosis of anorexia of dementia is rather grave, the patient opposing to all efforts of the medical attendant and the family an indomitable negativism.

GERMANY.

Berlin, June 27th, 1914.

Amongst the other subjects discussed at the German Surgical Congress was the

Surgical Treatment of Suppurative Meningitis,

by Hr. Barth, of Danzig. He reported three cases which he had successfully treated by laminectomy of the lumbar vertebral column with drainage of the dural sac. The meningitis was connected with injury as regarded origin. Staphylococci, diplococci, and streptococci were all found in the puncture fluid. Puncture had been repeatedly made without effect before the operations were tried. The prospects of recovery in suppurative meningitis were clearly not so bad as was generally believed, if the disease was taken in time, as the affection began apparently as a diffuse process, and it was only later that encapsulisation took place between the cerebral convolutions. People had been sceptical as to operation for two reasons, the affection had been considered incurable, as the end stage had always been kept before the eye, just as had been the case in meningitis after operation. It was not to be forgotten, however, that with gradual advance of the disease a gradual power of resistance was developed through growth of leucocytes. Whilst lumbar punctate in meningitis acted as a bactericide this action failed altogether in normal cerebrospinal fluid. Diagnosis depended on the presence of polynuclear leucocytes in the lumbar punctate, the infective bacteria might disappear under the influence of the leucocytes. Operative recoveries that now numbered about 50 were the spoil mostly of operation in ear disease. The recovery did not so much depend on the bacteriological condition, both cases of streptococcus and pneumococcus were amongst the recoveries.

Lumbar puncture was called for on the first appearance of symptoms of meningitis. Immediate elimination of primary centres of disease, continued lumbar puncture until relief of cerebral pressure was obtained, then if this did not suffice, drainage of the dural sac either through the skull or the lumbar vertebræ. Murphy drained through the posterior fossa above the foramen magnum. There was now no longer any reason why meningitis should not be treated surgically.

Hr. G. Axhausen, Berlin, followed with a paper on the

Origin of Free Bodies in Joints and their Relation to Arthritis Deformans.

The speaker considered the König method of origin of these loose bodies in joints—viz., by a reactive dissecreting process in a joint in which there was disease already established, to be proved. The inquiry into the so-called fore-stages of the bodies had been striking. Injury to a circumscribed part of a joint led to a regular series of symptoms of reaction locally and others of a general nature. The local appearances of a regenerative nature were the cause of the bodies, the general, which we were not yet thoroughly acquainted with, were similar to those we had been in the habit of wrongly calling arthritis deformans. The local symptoms consisted first in a reorganising of all the cartilage into living fibrous cartilage by cell invasion of adjoining living cartilage, and, secondly, in the resorbing and dissecreting invasion of the changed subchondral marrow (subchondral dissection). If the subchondral dissection prevailed there came on a softening of the circumscribed unhealthy portion of the joint where exfoliation followed as the result of mechanical causes. The primary injury to the joint the speaker held with Barth to be a trauma. The mechanics of injury to the knee joint was almost always the knocking together of the cartilage of the patella and that of the lower end of the femur, by force from the front and side-front. That was understandable as it was here in this exposed spot that cartilage rested on cartilage. This also explained the localisation of the disease (60 per cent. the anterior femur surface, 30 per cent. the posterior surface of the patella). This idea of the origin also explained the frequent occurrence of the affection in both places at the same time. The practical conclusions reached by the reader of the paper were the following:—

As from experience we knew that the free body represented only one part of the disease in the joint the removal of a solitary loose body was not sufficient. Rather wide opening of the joint was indicated in order that all parts of the joint might be examined in which the bodies were likely to be met with, and any of the cartilage that had become changed might, if necessary, be removed. It was only in this way that the injurious effect of necrosed particles of cartilage could be avoided. In other forms of traumatic arthritis also the diseased cartilage was at fault. It was for these reasons, therefore, that arthrotomy was in place more frequently than formerly, both in case of a dissection process with inclusion of bone, which could be identified by the Röntgen rays, and also in those in which the ray examination was negative, when the symptoms pointed to mischief in the cartilage. Juvenile arthritis deformans of unknown origin also was a masked traumatic arthritis deformans and as such was amenable to treatment. According to the views of Hr. Barth, Danzig, these loose bodies were the results of traumatic, arthritic, and traumatic-arthritic processes. Hr. Goetjes, Cöln, pointed out the importance of the crucial ligaments in the origination of free bodies; he had seen three cases in which free bodies formed through rent in the cartilage from violent action of the crucial ligaments. As the cause for this injury was generally very slight, a slight false step perhaps was sufficient to set up after a time symptoms of loose bodies in the joint.

AUSTRIA.

Vienna, June 27th, 1914.

THE FRIEDMANN TREATMENT OF TUBERCULOSIS.

(Concluded from our last issue.)

In one patient the inoculation was followed—locally—after an interval of 48 days by the bursting through of the contents of the "living medicine chest." Two guinea-pigs were then inoculated with the matter of the fistulous discharge. On the death of those animals, a large mass of caseated mesenteric glands was found in the abdomen of one, and in the central region of the liver a number of softened nodules, each of the size of a bean. One of similar size and consistence was also found in the spleen. On the other hand, the autopsy of the second animal yielded negative results only. Microscopic examination of the constituents of the discharge demonstrated the presence of slender rods, which displayed typical acid-fast and slightly alcohol-fast characteristics. The cultures obtained therefrom grew and flourished luxuriantly at the ordinary temperature of the room, but rather feebly when exposed to that of the incubator. The cultures displayed a greasy, viscous physical character—a feature which distinguished them markedly from the dry, crumbling quality and consistence of the cultures of the tubercle bacilli procured from mammals. After obtaining a pure culture, another pair of experimental inoculations were carried out—one on a guinea-pig, and the other on a rabbit. After an interval of three weeks had elapsed those animals were killed. The body of the guinea-pig displayed an advanced stage of degeneration of the parenchymatous tissues of the organs, with formation of some nodules in the substance of the liver and spleen; that of the rabbit presented nodules of the size of hempseed scattered about through the liver. The microscopic examination of the organs had not yet been completed, so that no definite statement could be made regarding the presence of tubercle.

The results of investigation have so far, accordingly, gone to prove that the remedy is not so innoxious as Friedmann would have us to believe. That it occasionally provokes tuberculous formations is shown by the nodular deposits which follow its injection into the tissues or blood-vessels of animals, and its inoculation on serous surfaces. The clinical observations which had been made in cases of human tuberculosis went collectively to show that the condition was made worse by the administration of the Friedmann remedy. Intravenous injection was followed by the production of profound mischief in the parenchymatous organs, which had lasted for months, and had even involved the most most vital structures. On this account it is, of course, most desirable that every practitioner should be absolutely warned against the danger of its use.

Dr. W. Budinger described four cases—two of tuberculous fistulæ, one of cold abscess originating from caries of the sacro-iliac symphysis, and one of tuberculous lymphoma of the neck. The first three had been considered by Friedmann but little suitable for the administration of his remedy, but he regarded the lymphoma as a most desirable case for testing its therapeutic efficacy. In the case of caries of the sacro-iliac symphysis, a very pronounced febrile reaction followed the injection, whereby the previously unfavourable condition of the patient was made substantially worse than before. In none of the cases was an actual improvement noticed. That of tuberculous lymphoma of the neck was observed to increase considerably in size after the injection had been used, and the general condition of the patient, who had suffered from prolonged fever after the administration, has ever since grown worse.

Dr. O. Föderl described the cases of five patients with variously localised foci of tuberculous disease, all of which had been injected by Friedmann himself. Three of those had been cases of osseous tuberculosis with co-existing fistulæ; one was a case of cold abscess which had originated at a focus of costal caries, and the fifth case was one of renal tuberculosis. The ages of the patients who suffered from osseous tuberculosis with associated fistulæ varied from 6 to 20 years; of the other two, one was 36 years old and the other 40. One of the five cases had an intravenous injection administered, and this was followed by intense reaction, accompanied with high fever, rapid pulse, vomiting and diarrhœa. In the cases of the other patients who remained under treatment and observation at the institution for a period of three months, not one presented any other improvement beyond what had been previously experienced by other cases under other varieties of conservative therapeutic treatment. In not a single instance did any striking improvement occur which could be attributed to the specific influence of the remedy employed. At present date—that is to say, after the lapse of an interval of five months since the date of the injection—all the patients presented fistulæ, even including the case of caries of the rib, in which the injection had been given in connection with the operation. In the case of osseous tuberculosis with discharging fistulæ, which had been used as control experiment for the purpose of ascertaining whether any reaction would be manifested in the co-existing tuberculous lymphatic glands of the neck, these were extirpated after an interval of three months had elapsed after the date of the injection. In the case of renal tuberculosis, in which nephrotomy had been carried out five weeks previously on account of perinephritic tissue thickening and transitory insufficiency of the other kidney, the infiltrate had been reabsorbed

—a fact that was attributed to the favourable condition of the wound which had been established as a result of the nephrectomy. So a single case had healed, in which the operation had been carried out immediately after the administration of the Friedmann injection. But this case must, in turn, be contrasted with one of caries of the sternum, which Friedmann himself, on account of the extent of the disease, had pronounced an unfavourable one for the administration of his remedy, and of which the subsequent cure was accordingly due to operation only.

RESULTS OF THE MERLUSAN TREATMENT OF SYPHILIS.

Dr. Thaddäus Majewski reports that during the past few months 40 syphilitic patients were treated in the dermatological section of the K.u.K. Garrison Hospital, Lemberg, according to the *régime* of the merlusan cure. Of that number, 17 had not undergone any previous treatment. The other 23 were cases of recurrence of the disease after previous treatment. In carrying out the merlusan therapeusis, pastilles of this remedy were administered three times daily, always after meals. All acid foods were rigidly excluded. The curative *régime* was maintained during a period of from four to six weeks. During this interval many of the patients increased notably in body-weight. Symptoms of intoxication or other specially unfavourable manifestations were never observed. In some of the cases, the previous mercurial courses of inunction and injection had produced ulceration and detachment of the tissues of the gums and aggravated examples of mercurial stomatitis, to such extent as to demand immediate cessation of the treatment. Every one of those was found to tolerate the merlusan cure without the least inconvenience. The external manifestations of syphilis (initial scleroses, indolent buboes, mucous and cutaneous patches, condylomata lata, laryngites, etc.), were submitted simultaneously to appropriate local treatment.

As in the case of every other anti-luetic remedy that has hitherto been tried, the adoption of the merlusan cure has not—on account of the very various degrees of lesion presented—given correspondingly satisfactory results in all cases. But the external syphilitic lesions attained to complete healing in every one of the cases submitted to the merlusan cure, and secured this result more rapidly and satisfactorily without the use of any other mercurial preparation whatever. The serological control of the cases showed that the change of the Wassermann reaction from positive to negative was always established. either immediately after the completion of the cure, or after a short interval had elapsed.

A record so strikingly successful testifies to the possession of energetic curative properties by this new remedy. Besides, a specially favourable item of testimony to its value is afforded by the fact that the degrees of success which it has hitherto obtained, and of permanency of results secured, have proved immeasurably superior to those achieved by any of the long list of other mercurial preparations that have hitherto been employed. Thus the claim has been definitely established that in merlusan we have found a remedy which is at the same time energetic, perfectly innoxious and without any disagreeable properties or after-effects.

HUNGARY.

Budapest, June 27th, 1914.

THE ACTION OF MOUNTAIN CLIMATE ON EXUDATIVE DIATHESIS.

DR. DALMADY practises at Ta'trafured (height about that of St. Moritz in Switzerland), and he states that the climate there has a remarkable action on the Exudative Diathesis, and especially on one of its principal manifestations, bronchial asthma. The general health improves, the blood-picture shows marked benefit, and the nervous system gains tone. It is a familiar fact, he says, that the constitutional diseases are much rarer among the inhabitants of mountain districts than elsewhere, and when they occur they are of a milder type. His forty child patients with bronchial asthma, brought up into the mountains as the last resort after failure of all other measures, had no further attacks. Only two of them had a mild recurrence in the first two weeks after an intercurrent severe "cold." But on return to the lowland the asthma returned, and it did not yield so readily during a second sojourn in the mountains. His experience confirms the necessity for making the most of the first stay, lengthening it out to a year if possible. The task is to transform the exudative diathesis, and this cannnot be accomplished in two or three weeks. It requires a year at least. Arrangements should be made for outgrowing the tendency in children. Eight of his forty asthma children had obstinate eczema, and four of these frequently had fleeting urticaria. All were extremely nervous children; three had convulsions and spasms—all this confirms the assumption of the under-lying diathesis.

TRAUMA IN THE ÆTIOLOGY OF CANCER.

Andriska reviews ten cases in which cancer developed at the point of a trauma, and a claim was made for industrial insurance money. In only a few of the cases was a causal connection probable. In one case the trauma caused a fracture of the femur at a point which proved to be already the site of a sarcoma, and the limb was exarticulated—the trauma in this case revealed the malignant disease long before it would otherwise have been detected. In the case of a man of 36, previously healthy until a block of ice fell against the lumbar region, a sarcoma gradually developed in the right kidney, and the kidney was removed the fourth month, but the patient succumbed to metastasis nine months after the accident. An insurance indemnity was awarded in this case, the death being regarded as the result of the injury, but this was accepted in only one of the other cases.

ON ACUTE AND CHRONIC INTESTINAL CATARRH IN CHILDREN.

Dr. Aufricht remarks that the diarrhœas of children are the daily bread of the general practitioner, and declares that the practice of restricting the children to "flour-soup" (browned flour with butter and water to make a soup) after a day of restriction to tea alone, is what often transforms a harmless acute enteritis into a chronic catarrh. He is convinced that excessive carbohydrate fermentation is the primary cause of severe dyspeptic disturbances, both in infants and older children. The physiologically weak intestine of the infant and the intestine of the older child, after it has been weakened by severe disease, behave alike in respect of carbohydrates. Bokay says that at all ages disturbances in the digestion of carbohydrates entail most readily intestinal catarrh, as the starch waste in the bowel putrefies so easily. Aufricht also strikes milk from the diet in the diarrhœas of children for at least a week after the stools are normal once more. The albuminous type of foods, with fat, but very little carbohydrates, should be the main reliance. The food should all be put through a hair sieve for infants, through an ordinary sieve for children. He allows by the second day two tablespoonfuls of white cheese with a slice of white bread, mixed with a little warm saccharin water and put through a sieve; the third day bouillon with one or two tablespoonfuls of boiled or raw meat, all sieved. By the fourth day he permits addition of two tablespoonfuls of spinach or turnip, with a banana. The above is the diet for a child of four or five; it represents about 1,204 calorics, which is not much below the normal ration of 1,380 calorics for a child of this age, but the proportion of carbohydrates is scarcely a tenth of that in the ordinary ration. In his extensive experience this albuminous type of diet has proved its usefulness in acute cases and is far superior to the "flour-soup" diet in the subacute and chronic cases. He has never known it to fail to date.

MR. FRANCIS VACHER, F.R.C.S., M.R.C.P., of 5, Cearns Road, Birkenhead, Cheshire, late Medical Officer of Health for Cheshire, left estate of the gross value of £39,839.

CONTINENTAL HEALTH RESORTS.

SWITZERLAND.

The Queen Alexandra Sanatorium at Davos Platz.

The Queen Alexandra Sanatorium at Davos Platz, Switzerland, is situated 400ft. above the town, and gets at that elevation a maximum of sunshine. The attractions of Davos and the unique virtues of the climate are not sufficiently appreciated in England. Situated as it is in a beautiful mountain valley 5,000ft. above sea level, it offers to the invalid suffering from pulmonary disease, a dry, bracing climate with the purest of pure air. The valley enjoys a remarkably still atmosphere, particularly in winter, being almost completely sheltered from wind; and the long hours of sunshine render the cure attractive and pleasant both in summer and winter, so much of the invalids time being spent in the open air. It is not generally known that the climate of Davos affords not only a winter cure for consumption, but a *summer alpine cure* as well; whilst the summer heat is never oppressive. The Queen Alexandra Sanatorium is a self-supporting benevolent institution, built by public subscription for the benefit of English-speaking subjects. The fees are extremely moderate, being only £2 2s. weekly, and include board, residence and medical attendance. Every patient has a private room with balcony facing south. To those who value that privilege and the advantage of an altitude cure with modern sanatorial improvements and under English management, this Sanatorium is strongly recommended.

FROM OUR SPECIAL CORRESPONDENTS AT HOME.

SCOTLAND.

EDINBURGH.

Sir James Leishman on the Insurance Act in Scotland.

The Chairman of the Scottish Insurance Commissioners (who was knighted the other day) addressed the Scottish National Conference of Friendly Societies at Stirling on June 20th, on the possibilities of the Insurance Act in the future. He said that contributions had been very fully paid, and that there had been little or no evasion; the Scottish Fund at present was over five million pounds. Up to date they had paid out nearly 2¾ million pounds, leaving for investment a reserve of 2¼ millions. Nearly £12,000 a week was paid out in sickness benefit, £3,000 in maternity benefit, and £12,000 in medical benefit. He discounted all stories of the impending bankruptcy of some societies. Societies which only took selected lives were over-insured and would have surpluses; those which did not take such good lives were under-insured, and probably some would have deficits. All this, however, was provided for in the Act, one of the most valuable provisions of which was that ensuring the solvency of the societies. Levies were unpopular, but all that would happen was that the societies which had a deficit would only be able to pay 9s. instead of 10s. per week until their affairs righted. That was not bankruptcy, but merely temporary adjustment. As regarded women, no purely Scottish women's society had an adverse experience, although it was admitted that the actuaries had not had sufficient experience of sickness in women, and the figures pointed generally to the health of women, especially married women, not being so good as that of men. There was a case for examining whether the contributions paid by women were high enough. From the point of view of the approved societies he questioned whether many of the claims relating to pregnancy which had been paid ought to have been paid at all. If, however, it was urged that the health of the women was the nation's care, then the State ought to make suitable provision. He thought that complaints against the societies for non-payment were quite groundless; most, on the other hand had paid out money, if anything, too freely. The complaints as regards doctors had not been numerous so far as actual attendance was concerned, but there had been many vague complaints of laxity in certification. This applied only to a minority of doctors, and there had been the greatest difficulty in getting the societies to substantiate the complaints. The present attitude of the Commissioners was that they were meeting the doctors in every area, explaining the position of the societies, and asking for their co-operation in securing efficient administration. He thought they were getting this through the doctors themselves, through the panel committees, and through the General Medical Council. It was difficult to refuse benefit against a doctor's certificate, and they were going to appoint medical referees, not to relieve either the doctors or societies of responsibility, but to decide in doubtful cases

Edinburgh Insurance Committee.

A definite decision has now been come to as to the allocation of surplus balance of the medical fund. The Medical Benefit Sub-committee advised that it be allocated on the basis of a personal distribution—*i.e.*, that most patients, and therefore most money, be given to the doctors with small lists. This, however, was not approved by the Insurance Committee, and the opposite proposal that it be distributed in proportion to the length of the doctors' lists was also rejected. The final decision was to divide equally—carried by 25 votes to 7.

Clinical Teaching in Edinburgh.

Arrangements have now been made which will have the effect of systematising the clinical instruction given in Edinburgh. The scheme is rather complicated, but its general principle is to divide the students in their last year into three sections, and to send each section in turn for one term to a certain specified course, and thus to prevent overcrowding in any one term. In former years, when the special subjects were to a certain extent optional—*e.g.*, when a man might take either diseases of children, ear and throat diseases, or dermatology, the custom was for these classes to be taken in the summer, the result being that they were unduly crowded, especially that on diseases of children. Now that they have been made compulsory, some method is necessary whereby the whole resources of each department should be utilised throughout three terms, instead of being partially neglected in one or two terms. As matters now stand, Section A, for example, will be compelled to attend ear and throat diseases from October to December, diseases of children from January to March, and dermatology from May to July. Another advantage is that on the new plan each section will have more time than hitherto for each subject, which is especially important in connection with diseases of children, for the time allotted to this subject has in the past proved quite inadequate. The way in which the new scheme has been worked out reflects the greatest credit on all concerned, and particular thanks are due to the Dean of the Faculty, Professor Harvey Littlejohn, for the wholehearted way in which he has thrown himself into the work of resolving conflicting interests and producing a harmonious scheme.

GLASGOW.

Sanatorium Treatment Cut Short.

As a result of a deficiency of funds, the patients in the sanatoria of Ayr Burgh Insurance Committee are to be brought home. A letter from the Commissioners, in reply to one sent by the Clerk, stated that the Commissioners would not be prepared to advance more than the proportion of funds applicable to each quarterly period, and suggested the expediency of exercising caution with regard to expenditure on sanatoria benefit. At a meeting of the Committee, the Clerk stated that if they went on spending as they were doing at present, his estimate would be exceeded by about £80 at the end of the quarter. Mr. Corrigan moved the approval of the sub-committee's recommendation that the patients should be brought home. He knew that the proposal on the face of it looked revolutionary, yet they had no alternative. He thought the local health authorities should now take up the cases. Mr. S. Hill, in seconding, said the committee were individually and collectively responsible for any deficency they might cause. An amendment was proposed, with a view to continuing the treatment of the more hopeful cases, but the sub-committee's recommendation was approved by 18 votes to 6. This result is regrettable, and it does not appear from the terms of the Commissioners' letter that the Committee would have been precluded from making good any deficiency of funds in the present quarter by corresponding savings in the remaining quarters of the year.

The New Glasgow Hospitals.

The hospitals which the King and Queen are to open in Glasgow next week are the Glasgow Royal Infirmary and the Royal Hospital for Sick Children. In the case of the former it has been a matter of rebuilding upon the same site, business being carried on as usual The new buildings are costing over half a million, and when completed they will provide accommodation for nearly 700 patients. It is considered that everything that science and skill can devise to aid recovery or alleviate disease has been brought to bear in the arrangements and equipment of this new infirmary. The pathological building has a great central hall, with circular roof, top-lighted, and with a gallery all round, off which the various laboratories and lecture rooms are entered. The *post-mortem* room is a lofty apartment, with a gallery for students. All the surgical wards are provided with electric power, so that electric treatment can be applied to patients without requiring them to be removed from their beds in the wards. The new Royal Hospital for Sick Children is a new building upon a new site, and is costing, with the site, £140,000. The old building contained 74 cots, while the new one will accommodate fully 200 patients, and is thus the largest children's hospital in the United Kingdom, with the exception of that in Great Ormond Street, London. It is built on the pavilion system on the eminence known as Yorkhill. The site and grounds extend to 14 acres. The special features of all the wards are the large windows and low sills, so that the children can see out, and the absence of the customary sanitary towers at the outer ends of the wards, there being instead windows opening out to large balconies or verandahs, to which children in their cots may be wheeled.

Glasgow University Commemoration.

Commemoration Day, which is held in Glasgow University once in every two years, has come and gone. Lord Rosebery, as Chancellor, presided. The principal feature of the proceedings was an oration by Emeritus Professor Sir Hector C. Cameron upon "Lord Lister, 1827-1912." In the course of his address, Sir Hector made special reference to the period during which Lister was Professor of Surgery at Glasgow University—namely, from 1860 to 1869. Lord Lister had himself described this period as "the most productive and happiest years of my life." Following upon Sir Hector Cameron's oration, graduation took place. Among the honorary graduates upon whom the degree of LL.D. was conferred was Sir William B. Leishman, of the Royal Army Medical College. Sir William qualified in medicine at Glasgow University in 1886.

BELFAST.

Ulster Hospital for Women and Children.

At a meeting of the Board of Management of the above hospital held recently the following appointments were made:—Surgeon, Mr. S. T. Irwin, M.Ch., F.R.C.S.Edin., in place of Mr. A. B. Mitchell appointed Consulting Surgeon; Gynæcologist, Mr. T. S. Holmes, M.B., F.R.C.S.Eng., in place of Miss Marian Andrews, resigned. Mr. M. K. Nelson, M.R.C.S., was appointed to the post of Assistant Surgeon, lately held by Mr. S. T. Irwin.

Dr. D. H. de Souza, M.D., D.Sc., M.R.C.P., has been appointed Demonstrator in Physiology at King's College (University of London).

LETTERS TO THE EDITOR.

[We do not hold ourselves responsible for the opinions expressed by our Correspondents.]

THE GENERAL MEDICAL COUNCIL AND "THE FAMILY ENCYCLOPÆDIA."

To the Editor of The Medical Press and Circular.

Sir,—In your leaderette on this subject in the Medical Press and Circular for June 24th, page 624, you say, and quite truly, that the advertisement of the names and professional titles of a number of medical men with a popular medical work constitutes an outrage upon the established usages and traditions of the medical profession. You did not, however, attach any blame more serious than that of "inadvertence" to Sir Clifford Allbutt, and inferentially to the other men whose names were advertised in a similar manner. As I am one of those, I trust you will allow me a few lines to say that even the blame of "inadvertence" can hardly be attributed to me. The only inadvertence of which I have been guilty, if inadvertence it can be called, was that of giving to a young man who had studied at St. Bartholomew's Hospital the assistance which he wished, without ever dreaming that he would misuse my name, and without therefore calling upon him beforehand for a guarantee that he would not do something of which I did not suppose him capable. The statement that the men whose names were advertised in connection with the "Encyclopædia" revised the proofs of that work is certainly untrue in regard to myself, and to some others whom I have asked. The facts in regard to myself are that Dr. Riddle told me that he was writing a book, and that one section of this was on alcoholism. He asked me to look over his article and see that he had made no mistakes, as he was anxious that anything he published should be correct and do no harm. I acceded to his request, and looked over his typewritten copy. I thought no more of the subject until I saw my name advertised along with a number of others in the *Daily Mail* of February 26th. A few hours after my attention had been directed to it, I received a telegram from Dr. Riddle to this effect:—"Have been ill past week. Amazed at gross advertising of names in connection with my book. Have wired publishers to cease immediately. Please accept this apology."

This letter was followed on March 3rd by the following letter:—

"Dear Sir Lauder Brunton,—I trust that you will believe that I am as much upset as you yourself must be at the manner in which in my absence (I have been away ill in the country for ten days) your name has been advertised in connection with my 'Family Encyclopædia of Medicine.' I have written the following letter to the *Lancet* and *British Medical Journal*, which I trust will, at any rate, show your own complete ignorance of the manner in which your name was to be blazoned abroad:—

To the Editors of the *Lancet* and *British Medical Journal.*

Dear Sirs,—I wish to express my regret that the publishers of my "Family Encyclopedia of Medicine," in an excess of zeal to make all due acknowledgement of the assistance a large number of my friends and acquaintances in the profession have given me in the way of correcting and revising special articles in the book, have advertised their names in a manner most contrary to the ethics of the profession. It is scarcely necessary for me to say that both I myself and those whose assistance I have to acknowledge in my preface were quite unaware that their names were to be advertised in this fashion. I have also taken steps to assure myself that in the future when drawing up advertisements for the "Family Encyclopædia of Medicine" the publishers will have due regard for the ethics of the medical profession.

Yours faithfully,
Hugh A. Riddle.

"Regretting that I have been the unwitting cause of what must have been a great embarrasment to you and trusting you will realise that I am ready to do anything I can to set matters right,

"Yours sincerely,
"(Signed) Hugh A. Riddle."

The President and Censors of the College of Physicians and the Central Ethical Committee of the British Medical Association demanded an explanation of the appearance of my name in the advertisements. I forwarded to them the letter and telegram which I have quoted above in order to show that the advertisement was entirely without my knowledge or consent. These bodies accepted the evidence as satisfactory, and I trust, Sir, that you and your readers will regard them as sufficient to free me from any blame—even that of "inadvertence."

I am, Sir, yours truly,
Lauder Brunton.

London.
June 29th, 1914.

THE "FAMILY ENCYCLOPÆDIA OF MEDICINE."

To the Editor of The Medical Press and Circular.

Sir,—In to-day's issue of your journal under the heading "The General Medical Council and the Family Encyclopædia," you suggest that the Council abstained from taking action against the contributors to the "Encyclopædia" because one of its members happened to be in that position, while you further say that the Council "brought the full weight of its ponderous displeasure upon an unhappy panel practitioner whose virtues were proclaimed in circulars issued by some zealous society's officer." You should be aware that the Council initiates no proceedings as it cannot be a complainant as well as judge in its own court, but it was open to any aggrieved person to formulate a complaint which if made in compliance with the standing orders would have been brought before the Council for public trial. I cannot believe that you on reflection intend to suggest that such a complaint would have been suppressed because a member of the Council was involved, and I hope for the honour of your paper that you will offer some explanation.

Further, your charge that the Council brought the full weight of its displeasure upon a practitioner whose virtues were proclaimed in circulars issued by some zealous society's officer lacks the slightest basis of foundation in fact and should be withdrawn. I do not wish to mention the names again, but I will refer to the cases in the order in which they were brought before the Council. In the first case the defendant was found to have taken a prominent part by his speeches in inducing and endeavouring to induce persons to join an Association and so to become his patients. This case was treated by adjournment. The second case was withdrawn. In the third the complaint was found not proved, and was dismissed: and in the fourth, while the facts were found to have been proved, the Council accepted the apologies and assurances of the defendant and the matter there ended. All these cases were brought before the Council by the British Medical Association, and the Council would have laid itself open to a serious complaint had it refused to allow the questions involved to be duly enquired into, but not one of the cases affords the slightest foundation for your statement that the Council brought the full weight of its "ponderous displeasure" upon any one of the persons brought before it.

I am, Sir, yours truly,
Robert Saundby.

Birmingham.
June 24th, 1914.

[The paragraph referred to by Dr. Saundby expressly denied any possibility of the kind as regards Sir Clifford Allbutt. The high character of that gentleman is too well known to admit of any such misinterpretation. If our paragraph be taken to indicate any such belief, we take this opportunity of expressing in the strongest way our regret that it may have been open to any such construction. At the same time Dr. Saundby must admit that the publication in a "Popular Encyclopædia of Medicine" of the names, titles and professional appointments of a number of medical men constitutes an astounding reversal of medical tradition. That being so, the more illustrious the names involved the more necessary is their rehabilitation in the eyes of the profession generally. That can be done either by legal process or by express and explicit letters to the medical journals. As to the other point mentioned by Dr. Saundby, a reference to our original paragraph will show that the word used is the "displeasure" of the Council. We fancy that Dr. Saundby's letter supplies abundant proof of our contention. Adjournment for several months and public apologies are surely sufficient evidence of displeasure, apart from the mere fact of costs of proceedings and mental distress caused by summons before the Council. The British Medical Association, which was responsible, we believe, for their presence on that occasion, has issued a strong declaration upon the subject of dealing with professional subjects in lay publications—but that is another matter.—Ed. M.P. and C.]

OPEN SPACES AND PUBLIC POLICY.

To the Editor of The Medical Press and Circular.

Sir,—My card enclosed will show you that I bear a well-known medical name. My interest in your profession and its science is thus accounted for. It leads me to read every week one or other of the medical journals that I find on my club table, and to-day I have lighted on your issue of June 24th containing the letter by Dr. Fletcher Little under the above heading. The main fact of the situation does not seem to be recognised by Dr. Fletcher Little. This fact is that the overwhelming mass of the present generation of Britons are absolutely devoid of the smallest modicum of feeling for natural beauty and for art. Members of Parliament, including both Houses, merely sample the general public. If they gave any thought worth noting to æsthetic considerations, the amazing displays of brutal philistinism of which Dr. Fletcher Little gives only one example out of thousands would be impossible. Dr. Fletcher Little and his friends will encounter the utmost difficulty in getting any large proportion of London Members to act with vigour born of personal feeling in the question of Regent's Park, and in arousing even a languid feeling in any part of the House. I believe that the artistic sense has been driven out of the public mind during the past century of industrial development. The intellect of the people has been almost completely absorbed in the wielding and directing of new mechanical power—steam and electricity—and in gathering the wealth it has produced. In that time we have created the slum and the slum dwelling, as well as the cockney suburb, and have there bred up generations of our populace into whose souls the hideousness of their surroundings has sunk and remained. Every local public authority throughout the land constantly offers illustrations of these facts; and the same phenomena are observable in what ought to be our most enlightened bodies of the Metropolis, and in the Government itself. The outrage in Regent's Park is only one incident in a score to be followed by more scores of similar incidents during the development of the national estate of which the Park forms a portion. From Trafalgar Square by Pall Mall, through Waterloo Place and Regent Street to the end of Langham Place, the whole of the leases are now falling, together with Regent's Park, into the hands of the Government. The estate might have been made into a line of thoroughfares superior in architectural beauty to anything in Paris or in Western Europe. The buildings are being allowed of a height detrimental to architectural beauty, and which must prove injurious to health in excluding sunshine and impeding the movement of air. The architects are being given a free hand in carrying out the requirements of vulgar shopkeepers. There are buildings now being put up which, when completed, will present the appearance architecturally of sheets of plate glass supsporting on the top what look like the massive stone lower walls of a mediæval Florentine palace. It is, of course, all done by the steel framework within; but it forms the negation of beauty. No people with any feeling for beauty could allow for one day in the very centre of the capital of the Empire the existence of that queer jumble of incongruous caricatures of architecture and art formed by Trafalgar Square; nor could they have allowed the pitiable muddle made at the entrance to the Mall—a muddle contributed to by two of the chief municipalities, as well as by the Government itself. London, with its misty atmosphere, which veils so much ugliness, is developing magnificent vistas but it is all accidental and not with design or any sacrifice to art. On the other hand, Paris, although open to much criticism, is beautiful because her people will to have it so. As a straw is enough to show the way of the wind, one characteristic of the nation may be enough to show the direction in which it is really marching. A great part of national effort during the past century has represented hurtful movement merely, not true progress, albeit constantly mistaken for it. The question whether a people can be gradually moving to a higher plane of civilisation when devoid of the ideals that express themselves in the cult and care of beauty in nature and art—this question is surely worth the study of the physician and of all men who, like him, are virtually compelled to be students of sociology in general and of the evolution of our modern society in particular.

I am, Sir, yours truly,
An Architect.

Constitutional Club.
June 25th, 1914.

HELIOTHERAPY TREATMENT.

To the Editor of The Medical Press and Circular.

Sir,—I have been using the sun rays in the treatment of disease for twenty years, especially tubercular disease, yet Prof. Roget, in his third Chadwick public lecture, referred to in your issue for June 17th, stated that "the cure of tubercular disease by means of sunlight is a new science. Of course, English physicians have not the advertisement drum to advertise their mode of treatment like our Continental colleagues, and we have not the Alpine altitude, rarefied air and abundance of winter sun, but we have many places where the curative effect of sunlight can be carried out without going to the Alps for it.

It cannot be a very new treatment when I have advocated it for such a long period, and I must confess my attention was called to it by reading an account of such treatment by the Romans. I therefore first applied it in some cases of old chronic indolent ulcers and afterwards to tubercular disease. I reported a very satisfactory case of tubercular laryngitis recently in a contemporary, where daily exposure of the throat to sunlight formed part of the cure. Of recent years I have employed magnifying glasses to concentrate the rays on a definite spot, and at the present time the Surgical Manufacturing Co. are devising me an instrument to hold the different size glasses, in various positions, so that the cure can be carried out by the patient without the aid of a nurse or attendant. I hope to submit it for your expert opinion later on.

I am, Sir, yours truly,
Thomas Dutton, M.D.

London.
June 26th, 1914.

OBITUARY.

DR. F. T. PORTER NEWELL, DUBLIN.

We announce with much regret the death of Dr. Frank Thorpe Porter Newell, F.R.C.S.I., of Dublin, who died last Wednesday after a tedious illness, at the age of 54. Newell was a graduate in arts and medicine of Trinity College, Dublin, since 1881, and a Fellow of the Royal College of Surgeons in Ireland since 1892. For the past few years he had been a member of the Council of the College. In his young days he was apprenticed to the late Sir George Porter, and was a student of the Meath Hospital. He was subsequently House Surgeon of the Meath Hospital for no less than seven years. On leaving the Hospital he was appointed Dispensary Medical Officer of one of the Poor-law districts of the city, and he held that position up to his death. During the past three years he took an active interest in the questions that have arisen for the profession under the National Insurance Act, and he was one of the most energetic members of the local Medical Committee of the county borough of Dublin. He was also a member of the Irish Medical Committee. As a member of the Council of the Royal College of Surgeons he kept that body closely in touch with the problems that affect the general practitioner, and the loss of his influence in this way will be felt. Dr. Newell was personally somewhat reserved in manner, but to those who knew him he was the most loyal and trustworthy of friends. The energy and business ability which he brought to bear on the work of the profession in regard to the Insurance Act were something of a surprise to those who did not know him well.

Some months ago he developed a tumour in the neck. Operation gave only temporary relief, and for the past two months he bore his illness with exemplary courage and patience.

DR. J. A. KEAY, OF GREENWICH.

We regret to record the death of Dr. Joseph Hay Keay, which took place on June 17th, at 128 Greenwich Road, S.E. A wise counsellor and a skilful medical practitioner, he will be greatly missed by a great many in Greenwich, which is the poorer by his decease.

Born at Forneth, near Blairgowrie, Perthshire, on November 13th, 1849, Joseph Hay Keay was the second son of Mr. John Keay, farmer, of Over-Forneth. He was educated at Blairgowrie, Perth Academy and Edinburgh University, at which latter seat of learning he graduated M.A. at the age of 18 years, and won many prizes and scholarships. He studied theology for four years, and became a licentiate of the United Presbyterian Church of Scotland, but turned to medicine and took his M.B.C.M. in 1876 and his M.D. in 1892.

Dr. Keay practised first in Crook, Durham, where he married Annie Laura, the eldest daughter of Mr. L. Candler, of East Lodge, Crook. He then proceeded to Blairgowrie, where he practised for seven years. As a member of the School Board, he took much interest in questions of local education. After practising in Colne, Lancashire, for ten years, he came to Greenwich in 1899, where his work on the Greenwich Board of Guardians, and, later, State insurance, took up much of his time. He never spared himself in matters of this kind in which he took an interest. He was an active member of the British Medical Association and frequently represented the Greenwich division at the annual representative meetings. He was a keen student of the various systems of State insurance against sickness in operation on the Continent, and took an active part in endeavouring to allay professional anxiety in connection with the introduction of medical benefit into this country. Dr. Keay was the first Chairman of the Committee representing the insurance practitioners in London, a post which he was compelled to relinquish owing to his failing strength, and the breakdown in his health was no doubt largely due to his unselfish devotion to the public interest. He bore a long and very painful illness with the fortitude and patience which those who knew him would have expected. All his life he was a loyal and zealous member of the Presbyterian Church, and for several years past he was an elder of St. Mark's Presbyterian Church, Greenwich. He leaves a widow, a son and two daughters. In 1902 Dr. Keay published "The Medical Treatment of Gall-stones," and he was also the author of many pamphlets and articles.

REVIEWS OF BOOKS.

HYPNOTISM AND SUGGESTION. (a)

Much progress has been made in the study of psychotherapy during the six years which have elapsed since the last edition of Dr. Lloyd Tuckey's well-known text-book. That it has attained the position of a classic in the branch of medicine with which it deals is acknowledged by those who recognise the value of suggestion as a form of treatment. The influence of the mind over the body is so great and so far-reaching that no practitioner who wishes to be successful in his management of patients can afford to neglect the study of mental methods and their application to the treatment of functional nervous disorders. In view of the recent report of the Committee upon "Spiritual and Mental Healing," it is interesting to note the remarks of the author, who gave evidence thereat:—"Prayer and moral training are powerless to help the cretin, while thyroid extract tabloids will convert him into a normal and useful being. No man by taking thought can add a cubit to his stature, but we can often add many inches to a boy who is too short to enter the Navy by feeding him with thyroid." Dr. Tuckey believes that instruction in hypnotic theory and practice should be given in general hospitals and medical schools as a part of the student's curriculum. It is certain that if the medical profession does not recognise the utility of suggestive methods in suitable cases, the door will be thrown widely open to quackery, for hypnotism affords special scope to charlatanism. A succinct account of Freud's method of psycho-analysis is contributed by Dr. Constance Long, who points out its superiority for enabling us to understand the workings of the human mind. It is when the psychoneurotic appreciates the meaning of his phobias, obsessions, and hysterical symptoms, that they will disappear. We have every confidence in recommending this work to general practitioners and others interested in the study of psycho-therapy, for in its pages will be found the latest information respecting this engrossing subject.

(a) "Treatment by Hypnotism and Suggestion, or Psychotherapeutics." By C. Lloyd Tuckey, M.D.Aberd., Membre Fondateur de la Société d'Hypnologie, etc. Sixth edition. Revised and enlarged, with a Foreword by Sir Francis R. Cruise, M.D., D.L., K.S.G., Honorary Physician to the King in Ireland; and a chapter on Prof. Freud's Theories and Treatment by Psycho-Analysis, by Dr. Constance Long. Demy 8vo. Pp. xxviii., 431. London: Bailliere, Tindall and Cox. 1913. Price 10s. 6d. net.

ANÆSTHETICS. (a)

It is now almost exactly seven years (July, 1907) since we reviewed in the pages of this journal the fourth edition of Dr. Buxton's book, and it gives us great pleasure to extend to the new edition a similar cordial welcome to that which we gave to the last. The past seven years have been full of fruitful activity in the field of research as regards surgical anæsthesia, and Dr. Buxton gives us on the whole an admirable summary of the results that have been obtained. New methods are described and their value appraised by one, who, though he long used the older methods with a master hand, has not shirked the responsibility of putting new suggestions to the test of experience. How far the new methods will displace those that were formerly in use it is as yet impossible to say, but we feel confident that much that is new in anæsthesia has come to stay, and to stay too for the advantage of both patients and surgeons. There is, we believe, no text-book in the English language that will give the student and practitioner a better knowledge of these new methods, their limitations, and their uses, than Dr. Buxton's book now before us.

EXPLANATORY LECTURES FOR NURSES. (b)

It is quite refreshing to come across a modern work written for nurses that is not too advanced, for although this little book includes teachers as well as nurses, the style is simple and practical. The author believes in the free use of homely comparisons when lecturing to nurses, even though, as everyone who has so lectured knows, there may be a risk of being greatly misunderstood. Thus, in the chapter on the blood, intended for young women of the working-class, we find the following:—"The blood is the carrier of the body. The carrying is rather a complicated business—a sort of Carter Paterson van service and vestry ash-cart service in one—worked to gratify the tastes of the principal agent, Mr. Hæmoglobin and for the good of the neighbourhood it serves." It should be said, however, that the greater portion of the book, dealing with a wide range of subjects, contains much practical information, delivered in the lecture-room, which will be found helpful by nurses or by those who have to conduct classes for nurses. An index would have added greatly to the efficiency of this useful little work.

ELECTRO-PATHOLOGY AND THERAPEUTICS. (a)

We are always hearing or reading the statement that over-specialisation is one of the characteristic evils—perhaps an inevitable one, as well as not wholly unmixed with good—of this over-worked and over-educated and over-worried generation. We believe the statement so expressed to be nearer representative truth than most of those to which we are accustomed to be treated regarding general questions and public events. But if British twentieth-century civilisation presents on one side a specialised aspect, it displays an encyclopædic one on the other—originally prepared and illuminated by the possession of such a book of universal reference as the "Encyclopædia Britannica," and subsequently nourished by the daily bread of the ha'penny newspaper. And this existing arrangement furnishes an opportunity for the development—indeed, it practically implies the existence—of connecting links or rods, of pronounced individuality and density and power of resistance, which unite the opposed and parallel strata. Such individual bonds and bars have their position a good deal favoured by the inevitable and permanent separation of the latter, which gives the intermediates the opportunity of drawing simultaneously upon the pabulum supplied by both neighbouring structures. The case before us seems to illustrate and exemplify the point of view which we have endeavoured to present. The joint authors of the present work are lay scientific specialists at one extreme aspect of their auto-presentation and medical experts at the other. The wide (and still somewhat weird) domain of electricity leaves even now vast scope for the stimulation of the imagination of "the general," and the unsatisfactory results of "anti"-campaigns against some of the most familiar and most deadly diseases furnish a temptationally wide scope for the culture of opportunism—to use a somewhat euphemistic term.

It is useless to attempt to examine in detail the claims here advanced. We can only refer to a specimen brick or two, from which the skilled reader may perhaps be able to form an opinion regarding the stability of the mansion. "I could quote many cases of double pneumonia where the temperature has been 105.5° and 106° F., and show that in every such case the temperature fell to 101° within an hour of the dielectric being applied, and that rapid recovery followed." Correspondingly happy was the result in the treatment of acute appendicitis. Then with regard to the permanent white scourge we are told that: "Specific remedies innumerable have been tried, but of these 'tuberculin' alone retains some semblance of vitality." Not so with the present neuro-dielectric, under the influence of which "the bacilli are almost at once rendered inert and . . . . thereafter give no trouble which is not in the power of the ordinary medical practitioner to deal with." We trust that we have now helped the reader towards the formation of an opinion, and must here leave him to acquaint himself with the balance of the text of this interesting, well-printed and well-illustrated volume.

A Motor-Car Manufacturer's Munificence

It is announced that Mr. Henry Ford, the motor-car manufacturer, who two weeks ago gave £600,000 to the Detroit General Hospital, intends to convert the hospital into an institution for the study and prevention of tuberculosis and cancer.

(a) "Anæsthetics, their Uses and Administration." By Dudley Wilmot Buxton, M.A. Fifth edition. 8vo., pp. xiv., and 477. London: H. K. Lewis. 1914.

(b) "Explanatory Lectures for Nurses and Their Teachers." By H. Hawkins-Dempster. Pp. xi., 224. Bristol: John Wright and Sons, Ltd. 1913. Price 3s. 6d. net.

(a) Electro-pathology and Therapeutics." By Arthur E. Baines, sometime Editor of *The Electrical Engineer*, and Associate Editor of *The Electrician*. Together with a Prefatory Treatise upon the Nervous System in its Relation to Neuro-Electricity, by F. H. Bowman, D.Sc., F.R.S.Edin., M.I.E.E., F.I.C., F.C.S. Berl., Straton Prizeman and Gold Medallist in Technology, University of Edinburgh. London: Ewart, Seymour and Co., Ltd.

Summary of Recent Medical Literature English and Foreign.

Specially compiled for The Medical Press and Circular.

The Newer Conceptions of Syphilis and Parturition.—Lobensteine (*Amer. Jnl. Obs.*, lxix., 3) says that in considering Colles' law that of 125 mothers who had at no time been treated, nor had presented signs of syphilis, but who gave birth to syphilitic infants, 71 per cent. gave a positive Wassermann reaction after labour. Of 25 mothers with symptoms of syphilis 71 per cent. gave a positive reaction. That a specific parent or parents may give birth to a non-specific child is greatly doubted from the findings with Wassermann's reaction. Those rare cases in which an infant apparently escapes infection are dependent, not upon immunity, but upon the well-known fact that the syphilitic virus shows a natural tendency to lessen in virulence with passing years. Opinions are rather divergent as to the value of the Wassermann reaction in infants, but with proper *technique* syphilitic infants will give the reaction in most cases. The results upon the fœtus from treatment of the mother with mercury have been uncertain. Salvarsan affords greater hopes of success, especially when combined with mercury by injection. The action of the arsenic protects the child until the birth, and then its action ceases in large measure. With salvarsan the intra-uterine death-rate is about 15 per cent., while with mercury it is about 65 per cent., or 35 per cent. when the injections are used regularly throughout the entire period of gestation. All children born of suspected parents, or parents who give a plus Wassermann reaction, should have their blood examined soon after birth, and should receive active treatment in the presence of a positive reaction, even when this is the only indication of disease. The treatment should be direct either with arsenic or mercury. F.

The Present Status of Fibroids of the Uterus.—Schoenberg (*Amer. Jnl. Obs.*, lxix., 3), from an extensive consideration of the results obtained by operations, either myomectomy or hysterectomy, and the numerous complications and degenerations which may develop in the presence of fibroids, considers that the old conservative attitude towards the removal of fibroids is no longer justified. The indications for operation are considered to be—malignant change, when situated in the lower uterine segment, profuse bleeding, or likelihood from size of the tumour to cause pressure symptoms. In the case of young women myomectomy is the operation of choice. It is estimated that only 10 per cent. of the women who have myomectomy performed subsequently bear children, and therefore future child-bearing should not too strongly influence the decision between myomectomy and hysterectomy. The best results are said to be obtained by supra-vaginal hysterectomy. The reports of Röntgen therapy are considered, and if the results prove to be as favourable as the early reports showed the method would supplant surgery in many cases. However, unfavourable results are steadily being reported, and only a small percentage can be classified as complete cures. The majority of so-called cures are only cessation of symptoms. Another factor against the Röntgen rays is the damage done to the ovaries. It is claimed that the effect is primarily on the ovaries, and where the ovaries are behind a large tumour the rays produce no result. Therefore operation is claimed to be more conservative by retaining the ovaries and allowing other structures to be treated which may be involved. Statistics are quoted showing that out of 380 cases in which the size of the tumour was indicated only 5.3 per cent. showed disappearance of the tumour. F.

Ectopic Pregnancies and Repeated Pregnancies.—Smith (*Surg., Gyn. and Obs.*, xviii., 6), from cases collected, found that in 144 women operated upon for ectopic pregnancy and living subsequently in conditions in which pregnancy was possible, 47, or 32.6 per cent. had uterine pregnancies, and 21 had repeated ectopic pregnancies, or half as many as had living children. Of 67 women under 30 years of age, 27 had uterine pregnancies and 10 had ectopic; while of 74 above 30 years of age, 19 had uterine pregnancies and 11 had repeated ectopic. Since, therefore, much less than half the patients bear children subsequently, and 14.6 per cent. repeat the ectopic pregnancy, the question is raised whether it is best to save the other tube when it seems capable of transmitting the ovum, and it is considered that this should depend not only upon the state of the tube for future pregnancies, but upon the number of children the patient has borne, her general health, and her desire for future pregnancies. F.

Milroy's Disease.—Phillips (*Cleveland Med. Jnl.*, May, 1914) records two cases of persistent hereditary œdema of the legs, or the so-called Milroy's disease. The first was that of a man, æt. 40, in whom the condition had been present from the first year of his life. The condition had never caused him any inconvenience except at times when his legs became red, swollen, hot and tender. These acute exacerbations would pass off in a few days, and for many years these acute attacks only recurred at intervals of about six months. Latterly, however, they had become more frequent. The second case was in a boy, æt. 6, the son of the first patient. The condition had been present in this child from the time when he was four months old. The diagnosis of the condition is summarised as follows:—The restriction of the œdema entirely to the legs; the absence of any discoverable cause for the œdema, either local or general; the strong family predisposition to the complaint; the painlessness of the pale swollen legs, and the absence of any constitutional symptoms; the sharpness of limitation of the upper level of the œdema, and its persistence when once established. The disease attacks both males and females. No treatment seems to have any effect on the condition, except that the swelling may be held in check by bandaging. The disease does not appear to have any influence on the expectation of life of the individual affected. K.

Paroxysmal Tachycardia in a Child.—Hutchinson and Parkinson (*Brit. Jnl. of Children's Diseases*, June, 1914) record a well-marked case of tachycardia in a child, aged two years and nine months. This appears to be the earliest age at which the disease has yet been recorded. Between May 27th and October 12th, 1913, the child had in all four attacks. The first attack lasted twelve days, and during it the pulse-rate reached 160 per minute. During the second attack, which occurred three days later, a photographic tracing showed a pulse-rate of 230 per minute. The third attack occurred some three months later, and during it the radial pulse tracings showed a rate of 215 per minute. The electro-cardiograms showed a similar character to those of the previous attacks. The fourth attack occurred about a month later, and though a pulse-rate of 227 per minute was recorded there were no symptoms of distress. The last attack ceased suddenly after defæcation. K.

Tobacco Amblyopia.—Vandegrift (*Med. Record*, May 30th, 1914) discusses this interesting condition, and records a well-marked case. The patient was a man, æt. 45, who had never taken alcohol, but admitted to smoking about six cigars and six pipes of tobacco a day for the last thirty years. Vandegrift holds that the prognosis in the disease is excellent, even in cases of long standing. It may be necessary to persist in treatment for many weeks before improvement begins, and many months may pass before complete cure is attained, though six to eight is a sufficient time to cure the average case. Not only is the cure almost always possible, but a relapse is almost unknown, even though the patient returns to the use of tobacco in large quantities. Strychnine is considered the best remedy for the disease besides the abstinence from tobacco. The administration of the drug must be begun with the average dose, but as quickly as possible it should be pushed to the physiological limit. It is also necessary to combat the patient's irritability, worry, and any general debility that may be present.

K.

MEDICAL NEWS IN BRIEF.

Medical Sickness and Accident Society.

At the last meeting of the Executive Committee of this Society the claim account presented still showed an improvement over that of last year, and the proposals received in these first five months constitute a record in the Society's experience. The new combined sickness and endowment table, with reduced premiums for the first five years, is also proving popular with younger members of the profession.

The votes for Epsom College were dealt with at this meeting, there being two candidates for foundation scholarships who are the sons of deceased members. The widow of a late member was also applying for a pensionership. The Society subscribes £105 per annum to the College and consequently controls a number of votes which are all used for the relatives, etc., of deceased members. During the past few years the sons of several members have been admitted to Epsom College as foundation scholars, and it is an undoubted advantage to intending applicants to be sure of a number of votes being polled for them by the Society. No extra premium is required to enable members to share in this advantage.

A Difficult School Attendance Case.

At Clerkenwell Police-court last week, before Mr. D'Eyncourt, a child of six was produced whose "brain was unprotected," according to a medical certificate as the result of a burn in infancy. There is a hole in the head, it was reported, "three inches long and half-an-inch wide, and it is hoped that in time a silver plate can be inserted in place of the lost bone. Meanwhile the child has to wear a shield." In this case, it was explained, the summons was a "friendly one." The mother thought the child safer at school than in the streets, and the schoolmistress shied at the responsibility of having the child in the school, where the slightest rough play might result in serious injury to the child. The magistrate said he saw and appreciated the difficulty, and suggested a "special school." It was explained that the child was not a "cripple," or "physically defective," as contemplated by the Act, and could not be admitted until aged seven. In the end an order was formally made for the child's attendance at a certain school, to bring pressure upon the teacher to admit the child, and presumably give it some individual attention.

Tuberculosis Dispensary for co. Dublin.

A temporary central tuberculosis dispensary for Co. Dublin was opened in the grounds of the Meath Hospital last week by Mr. P. J. O'Neill, J.P., Chairman of the Dublin County Council, who referred to the success of the treatment in rendering a number of persons fit to resume their employment. The present building was a temporary one, pending the opening of the permanent building now in course of erection, and they had also arranged for the use of two small wards in the Meath Hospital. He urged the need of good housing accommodation.

Dr. Coey Biggar, on behalf of the L.G.B., commended the work, and Mr. K. Nolan, in a return showing the number of cases dealt with from the appointment of the County Insurance Committee (July, 1912) up to the end of the last completed Insurance Act period (January 11th, 1914) 91 were discharged fit for work, 60 were improved, 41 were not improved, 6 were worse, 34 were discharged for breach of rules or had left, and 28 had died. In the cases of 77 persons discharged fit for work, in 43 cases the improvement was maintained, 14 were disimproved, 17 returned for treatment, and three died.

The Work of Epsom College.

The annual general meeting of the Governors of Epsom College was held last week, when the treasurer, Sir Henry Morris, presided. He was supported by Sir John Broadbent, Sir W. S. Church, Sir T. B. Crosby, Sir Dyce Duckworth, Sir James Reid, and other governors. Among the honours announced were three open scholarships at London hospitals and exhibitions at Oxford and Cambridge. Eleven boys had passed the whole or a part of the first examination for medical degrees of the University of London; 13 had passed the matriculation examination, three of them in the first class; nine had gained the higher certificate of the Oxford and Cambridge Schools Examination Board; 18 had obtained school certificates; and 19 had gained lower certificates, with 25 first classes.

The National Medical Union.

Mr. V. T. Greenger, of Brighton, presided at a dinner of the National Medical Union held at the Café Monico on Saturday last. Dr. J. Playfair, of Edinburgh, in proposing "The National Medical Union," said time would show that a union of non-panel men was a necessity for their own protection and to uphold the best traditions of the profession. Speeches were also made by Drs. F. Porter, Brassey, Brierley, and F. J. Smith.

The Alexandra Day Collection in London.

It is announced by the Lord Mayor that the amount of money collected in London on Alexandra Day was over £20,000.

University of Oxford.

In a Congregation held on June 25th, the following degree was conferred:—D.M., G. H. Hunt, Christ Church.

Society of Apothecaries of London.

The diploma of the society, entitling them to practice medicine, surgery, and midwifery, has been granted to G. Mes and C. Ward.

Apothecaries' Hall of Ireland.

The following gentlemen having passed the necessary examination have been admitted licentiates of the Apothecaries' Hall of Ireland: Michael R. Cleary, F.R.C.S.I., L.R.C.P.I.; Peter O'Dwyer, L.R.C.P. and S.I.

NOTICES TO CORRESPONDENTS, &c.

☞ **Correspondents** requiring a reply in this column are particularly requested to make use of a *Distinctive Signature or Initial*, and to avoid the practice of signing themselves "Reader," "Subscriber," "Old Subscriber," etc. Much confusion will be spared by attention to this rule.

SUBSCRIPTIONS.

Subscriptions may commence at any date, but the two volumes each year begin on January 1st and July 1st respectively. Terms per annum, 21s.; post free at home or abroad. Foreign subscriptions must be paid in advance. For India, Messrs. Thacker, Spink and Co., of Calcutta, are our officially-appointed agents. Indian subscriptions are Rs. 15.12. Messrs. Dawson and Sons are our special agents for Canada

Contributors are kindly requested to send their communications, if resident in England or the Colonies, to the Editor at the London office, 8, Henrietta Street, Strand; if resident in Ireland to the Dublin office, in order to save time in reforwarding from office to office. When sending subscriptions the same rule applies as to office; these should be addressed to the Publisher.

ADVERTISEMNETS

For One Insertion:—Whole Page, £5; Half Page, £2 10s.; Quarter Page, £1 5s.; One-eighth, 12s. 6d.

The following reductions are made for a series:—Whole Page, 13 insertions at £3 10s.; 26 at £3 3s.; 52 insertions at £3, and pro rata for smaller spaces.

Small announcements of Practices, Assistancies, Vacancies, Books, etc.—Seven lines or under (70 words), 4s. 6d. per insertion: 6d. per line beyond.

Original Articles or Letters intended for publication should be written on one side of the paper only and must be authenticated with the name and address of the writer, not necessarily for publication, but as evidence of identity.

Reprints.—Reprints of articles appearing in this Journal can be had at a reduced rate, providing authors give notice to the publisher or printer before the type has been distributed. This should be done when returning proofs.

Tooting Resident.—Some appear to welcome the class of advertisement disclosed in the marked newspaper sent; on others it is forced against their better instincts by the exigencies of press-men. In the special case referred to it would seem to be nothing but local gossip, for which it would be unjust to hold Dr. —— responsible.

PRIVATE PATIENTS AND THE INSURANCE ACT.

A correspondent asks for information as to whether dispensing for private patients by general practitioners has diminished since the passing of the National Insurance Act. In reply we would say that there is not much reliable information to be obtained as yet on the subject. The majority still dispense their own medicines in England, except, of course, for panel patients. In Ireland, on the contrary, it is and always has been exceptional for a practitioner to dispense his own medicines in the case of private patients, and to a lesser extent this prevails in Scotland.

Dr. A. S. (Kent).—The electrical sterilisation of milk, referred to in our columns a few weeks ago, was first carried out with uni-directional combined with slowly-alternating electric currents, but more recent researches show that the best results are obtained by the use of a rapidly alternating current.

THE CULT OF METHUSELAH.

According to Professor Metchnikoff, the secret of old age consists in a diet of beneficent bacilli.

When golden youth has flown
And you're bound at last to own
  That your way of life's decidedly down-hilly,
Though your hair is turning grey,
You can keep old age at bay
  By a diet of beneficent bacilli.

With fearful pains and care
You must regulate your fare,
  Nor relax your keen precautions for a minute;
Not a mouthful should be missed
By a practised analyst,
  Lest a stray unfriendly microbe should be in it

But, before your hat you doff
To Professor Metchnikoff
  And try his plan your tale of years to double,
It may come to you, perchance,
The question to advance,
  If life like that is *really* worth the trouble?

Daily Express.

Meetings of the Societies, Lectures, &c.

Wednesday, July 1st.

British Oto-Laryngological Society (11 Chandos Street, Cavendish Square, W.).—4 p.m.: Cases.

Thursday, July 2nd.

Royal Society of Medicine (Section of Obstetrics and Gynæcology) (1 Wimpole Street, W.).—8 p.m.: Specimens by Dr. Russell Andrews, Mr. J. D. Malcolm, Dr. W. S. A. Griffith. Short Communications by Dr. Archibald Leitch, Dr. Donald Roy. Votes of thanks to retiring Officers. The President's Annual Address. The Annual General Meeting of the Fellows will be held in the Robert Barnes Hall, 1 Wimpole Street, on Tuesday, July 7th, at 5 p.m.

Vacancies.

Certifying Factory Surgeons.—The Chief Inspector of Factories announces the following vacant appointment:—Greenwich (London).

Galway Union.—Medical Officer of the Spiddal Dispensary District. Salary £150 per annum, with extras amounting to £15 a year. Applications to R. F. Mullery, Clerk of Union.

Sunderland Borough Asylum.—Assistant Medical Officer. Salary £225 per annum, with the usual allowances. Applications to the Medical Superintendent, Borough Asylum, Ryhope, Sunderland.

Manchester Northern Hospital for Women and Children.—House Surgeon. Salary £120 per annum, with apartments and board. Applications to Mr. Hubert Teague, Secretry, 38 Barton Arcade, Manchester.

Kent County Asylum, Maidstone.—Fourth Assistant Medical Officer. Salary £250 per annum, with furnished quarters, board, attendance, coals, gas, garden produce, milk, and washing. Applications to Medical Superintendent, Asylum, Maidstone.

Bristol City Asylum.—Second Assistant Medical Officer. Salary £200 per annum, with furnished apartments, board, washing, and attendance. Applications to the Medical Superintendent.

Rotherham Hospital.—Senior House Surgeon. Salary £200 per annum, with board, lodging, and washing. Applications to the Secretary, G. W. Roberts, 8 Moorgate Street, Rotherham.

North Lonsdale Hospital, Barrow-in-Furness.—House Surgeon. Salary £150 per annum, with residence, board, and laundry. Applications to the Secretary.

Putney Hospital (Chester Bequest), Putney Common, S.W.—Resident Medical Officer. Salary £100 per annum, with rooms, board, and laundry. Applications to Mr. Frank Taylor, 198 Upper Richmond Road, Putney.

Royal Albert Hospital, Devonport.—House Surgeon. Salary £150 per annum, with board and laundry. Applications to the Chairman of the Selection Committee, Royal Albert Hospital, Devonport.

Salop Infirmary (County Hospital).—House Physician. Salary £110 per annum, with board and apartments. Applications to Joseph Jenks, Secretary, Board Room, Salop Infirmary, Shrewsbury.

Appointments.

Devine, Henry, M.D., B.S.Lond., M.D.Bristol, M.R.C.P., Medical Superintendent of the Portsmouth Borough Asylum.

Edwards, D., M.R.C.S., L.R.C.P.Lond., Certifying Surgeon under the Factory and Workshop Acts for the Dinas Mawddy District of the County of Merioneth.

Fenton, Thomas Gerald, F.R.C.S.Eng., L.R.C.P.Lond., Honorary Surgeon in Charge of the Ear and Throat Department at the Torbay Hospital, Torquay.

Galpin, Patrick Albert, M.D., B.S., D.P.H., B.Hy.Durh., Assistant Medical Officer under the Tuberculosis (Sanatorium Benefit) Scheme for Bristol.

Hirsch, Charles T. W., M.R.C.S., L.R.C.P.Lond., Anæsthetist to the Western Ophthalmic Hospital, London

Monod, Gustave, M.D.Paris, M.R.C.P.Lond., Physician to Vichy Thermal Hospital.

Mowat, Harold, M.D.Edin., Additional Radiographer to the Royal Chest Hospital, City Road.

Roberts, C. Hubert, M.D.Lond., F.R.C.S.Eng., L.R.C.P.Lond., Examiner in Midwifery and Diseases of Women to the Conjoint Board.

Stevens, T. G., M.D.Lond., F.R.C.S.Eng., Obstetric Surgeon to St. Mary's Hospital, Paddington, W.

Births.

Adams.—On June 28th, at Labuan, Straits Settlements, the wife of Dr. Wilmot Adams, of a daughter.

Carver.—On June 16th, at 8 Higher Terrace, Torquay, the wife of A. E. Carver, M.D., of a son.

Cates.—On June 22nd, at Laurel Mount, St. Helens, the wife of Joseph Cates, M.D., D.P.H., of a son.

Druitt.—On June 21st, at "Nigeria," Westhill Road, Torquay, the wife of Arthur E. Druitt, M.R.C.S., of a son.

Porter.—On June 20th, at 26 Queen's Road, Dalston, to James Houston Porter, M.R.C.S., L.R.C.P., and Mrs. Porter—a son.

Marriages.

Hunt—Stubbs.—On June 25th, at St. Gabriel's Westminster, Edwin Guy Hunt, M.D., M.R.C.S., L.R.C.P., to Kate Millicent Stubbs.

Mitchell—Bruce.—On June 27th, at St. Barnabas, Kensington, W., T. J. Mitchell, Capt., R.A.M.C., third son of the late Robert Mitchell, Esquire, Solicitor, Perth, to Blanche Katherine, eldest daughter of the late Robert Bruce, Esquire, M.D., F.R.C.S.E., Edinburgh.

Deaths.

Allen.—On June 24th, suddenly, at North Parramatta, N.S.W., Lancelot Lloyd Allen, M.R.C.S., L.R.C.P.Lond., youngest son of the late Charles John Allen.

Fere.—On May 6th, 1914, at Hampstead Hospital, Emery Norbert, M.D., dearly beloved husband of Maud Tresillian Fere, L.R.C.P.S.E.

Furth.—On June 28th, at Hindhead, Dr. Karl Fürth, formerly of 39 Harley Street.

Mugliston.—On June 24th, at "Coo-ee," Brent Knoll, Somerset, Dr. Henry Boyes Mugliston.

Smith.—On June 19th, at his residence, Martello Towers, Western Road, Canford Cliffs, Bournemouth, William Allis Smith, M.R.C.S., L.S.A., in his 80th year.

HULME DISPENSARY.

DALE STREET, STRETFORD ROAD, MANCHESTER.

WANTED a HOUSE SURGEON duly registered and fully qualified. Salary £180 per annum. Annual increase £10 to £200, with apartments, coal and gas. Applications, with testimonials, at once, to Honorary Medical Secretary.

THE MEDICAL PRESS AND CIRCULAR.

"SALUS POPULI SUPREMA LEX"

Vol. CXLIX. WEDNESDAY, JULY 8, 1914. No. 2.

NOTES AND COMMENTS.

The "Family Encyclopædia of Medicine."

The letter from Sir Lauder Brunton published in the last issue of the Medical Press and Circular throws a lurid light upon the way in which the list of "contributors" to that popular work was drawn up. He practically disclaims any authorisation whatever for the use of his name, and quotes *verbatim* documentary evidence from the editor placing the blame for objectionable advertising upon the publishers, Messrs. Harmsworth. It may be pointed out, *obiter*, that these "explanations" do not account for the hardly less objectionable list of names of contributors, with titles and professional appointments, that appeared on the front of the 2nd and 3rd fortnightly parts. Was Dr. Riddle to blame for that lapse from professional ethics or is that also due to the publishers' excess of enthusiasm? In the latter case, surely Dr. Riddle could have deleted the list after its appearance in the first number. The persistence of the list with the reference to the medical books of four authors, during three numbers, that is, six weeks after the matter had attracted general attention and criticism, demands further explanations from Dr. Riddle. So far as Sir Lauder Brunton is concerned, his account shows that he was the victim of those responsible for the production of the "Encyclopædia." It is not easy to understand why other "contributors" have not come forward with explanations of a similar kind.

The G.M.C.

The fact that Sir Clifford Allbutt—whose name, title, and professional appointments appeared in the list of "contributors"—is a member of the General Medical Council still further complicates matters. In these columns it was recently pointed out that the Council could not be by any possibility influenced by that fact in their collective attitude towards the popular "Encyclopædia of Medicine." Dr. Robert Saundby has construed that into an indirect attack upon the honour of that Council. If such a construction be possible, we can only say that it was remote from our intention, and, so far as it may be so interpreted, it is hereby wholly and unreservedly withdrawn. The Medical Press and Circular is at any rate entitled to a credibility not less than that so hotly claimed for and on behalf of the medical men whose names have been widely and, according to established professional usage, so offensively advertised as contributors to the "Encyclopædia." It is curious how, almost *una voce*, the gentlemen whom we have mentioned in this connection, and some whom we have not, have emptied the vials of their wrath upon the writer of these columns. In vain have we asked these gentlemen to suggest an alternative. Is the incident to pass unnoticed by the medical journals, one of whose functions is surely to keep a keen eye upon all that threatens to injure or destroy the honourable traditions of the profession, or to lessen its dignity in the eyes of the public? No suggestion as to the right and proper alternative has come from our correspondents.

Domestic Discipline of the G.M.C.

One unfortunate result of the introduction of side issues is that the attention of readers is thereby apt to be deflected from the main subject. Among the side isssues is the suggestion which appears to be contained in Dr. Saundby's letter, namely, that the General Medical Council have no power of disciplinary initiative in the case of ethical misconduct by their own members. If that be so the situation is worthy of comic opera, but it is difficult to avoid the conclusion that Dr. Saundby lays down that general principle. The constitution of the Council is out of touch with modern views: it is privileged, unrepresentative of the main mass of the medical profession, in short, it is a legislative make-shift founded on the old lines of autocratic class government. Recognising these and other defects it nevertheless comes as a shock to learn on the authority of one of its most distinguished representatives that the Council has no sort of control over the conduct of its own members. *Quis custodiet ipsos custodes?*

The Duty of Medical Journalism.

Whatever course be taken by other leading medical journals in this country, we have remained faithful to the out-spoken policy of the Medical Press and Circular, which for nearly a century has endeavoured to uphold a high standard of professional ethics. Sir Lauder Brunton's letter shows that the matter has received the attention of the Royal College of Physicians of London. It may perhaps be presumed that other corporate qualifying bodies—including both colleges and universities—will also ask for an explanation from those medical men, whose names have been associated—voluntarily or involuntarily—with the "Family Encyclopædia of Medicine." As we have all along insisted, there is no moral offence in the advertisement of medical men in lay publications; the *British Medical Journal* recently published a sort of guide as to where and how such publication was ethically permissible. This statement we found quoted in a Scotch lay newspaper, but we failed to discover it in a single newspaper published south of the Tweed. The rules of the ethical game, then, have been reduced to some sort of written form—so that the contributors can learn precisely and exactly upon what ground of established professional opinion they could take legal action if that course were decided upon. Failing the vindication of a law court it is surely incumbent upon the "contributors" to the "Encyclopædia" to follow Sir Lauder Brunton's example, and to publish a full and particular account of their personal appearance in public under circumstances of so unusual a nature.

LEADING ARTICLES.

CRIME AND MENTAL RESPONSIBILITY.

Last week a man named Marjoribanks was sentenced to three years' penal servitude and seven years' police supervision on a charge of obtaining goods by false pretences. There is nothing of unusual interest in the actual crime of which the prisoner was convicted, the offence being that of stealing a cheque-book, by means of which he passed a number of forged cheques. A special feature of the case, however, arises from the astonishing criminal record of the man, an architect by profession, and a member of a well-to-do family. At the present time he is only thirty-four years of age, but he has contrived to perpetrate a series of crimes that is in its way probably unrivalled in the annals of criminology. He first came under the notice of the police in 1896, and the longest period he has been at liberty since was stated in court to have been one month. His offences were of a most varied nature, many of them dealing with forged cheques, by means of which tradesmen were induced to supply him with goods. He assumed many aliases, including the names of military and naval officers and of noblemen. Judging from the police report, his offences were in the main those of a man of some intellectual force, and they were apparently carried out with great daring and skill. Of his power of organisation and his reckless courage the police have had several unpleasant experiences. In Maidstone Prison he was the ringleader of a riot amongst the prisoners, to quell which the governor had to call in a company of soldiers, who suppressed the outbreak at the point of the bayonet. In June last, again, he was being conveyed from London by train in charge of two police officers when he suddenly jumped from the carriage and made good his escape while the train was in motion. There is no need to enlarge upon the doings and the character of this unfortunate criminal. It may be well, however, to point the moral of his experiences by some reflections on the way in which society has dealt with his shortcomings. The first great fact that emerges from the sordid history is the absolute failure of criminal law administration as a deterrent. It has neither protected property nor reformed Marjoribanks. The next point that suggests itself is that of the mental responsibility of a man who seems to commit crimes habitually as ordinary persons play golf or go to the theatre. There is nothing to show that the state of this man's mind—his sanity, his mental and moral responsibility—has been investigated by any expert or person fitted to speak authoritatively on the point. As a matter of fact, the legal mind is slow to grasp the idea of mental irresponsibility. If advanced in court, a plea of the kind has to face a hostile battery of criticism from counsel and bench, and is often met by a pitiful display of contradictory expert evidence. In any well-considered system of criminal law administration there should surely be some permanent expert body available to determine the question of a prisoner's sanity. Without some such machinery there is the danger of individual injustice in all criminal courts, from the lowest to the highest. The action of such an expert body should be automatic, for, from the very facts of the case, an accused person would not be likely to plead insanity of his own accord. The subject cannot, of course, be more than glanced at here. Clearly, it is one of considerable social importance, and it is to be hoped that among the sweeping reforms that are needed in the procedure and the administration of the law, that of the determination of mental responsibility will receive due attention.

THE ANNUAL ELECTION AT THE ROYAL COLLEGE OF SURGEONS, ENGLAND.

It must be conceded that much general interest centred around the annual election at the College on Thursday last, a fact which was not surprising. In the first place, there was a record number of candidates competing for five vacancies. Again, just at the last moment, an element of political flavour was introduced by an appeal from the Society of Members, urging the Fellows to support three candidates who had intimated their intention, if elected, to favour the claims of the members for some share in the government of the College. This was the first occasion upon which such an appeal had been openly made. It was brought under the notice of the constituency by a circular issued at the beginning of the week. Again, a second record was established as showing the interest which the election had created. No fewer than 1,037 Fellows recorded their vote. The number of Fellows on the roll of the College is about 1,600, that is to say upwards of 61 per cent. took part in the election. The result of the poll was declared by the President of the College, Sir Rickman Godlee, as follows:—Mr. William Thorburn (Manchester), 534; Mr. Chas. A. Ballance, 434; Mr. W. McAdam Eccles, 351; Mr. J. Stanley Boyd, 337; Mr. Chas. Ryall, 304; Mr. J. B. Lawford, 256; Mr. T. J. Openshaw, 245; Mr. W. G. Spencer, 238; Mr. Raymond Johnson, 218; Mr. F. F. Burghard, 204; Mr. F J. Steward, 177; Mr. H. S. Pendlebury 106; Mr. T. H. Kellock, 99; and Mr. P. M. Yearsley, 90. The first five named were successful, and to these we offer our congratulations. In reviewing this remarkable contest, one or two points suggest themselves for notice. The first is the success of the provincial candidate who heads the poll. As we pointed out a week ago in these columns, a provincial candidate ought always to be successful; the success of such a candidate is merely a matter of agreement among the Fellows in the provinces, who greatly outnumber those within the metropolitan district. The provincial representation on the Council has always been a negligible quantity, for which the provincial Fellows have only themselves to blame. We believe that each large medical school in the provinces might with advantage in turn run a candidate at these elections; if this were done, as it might be, by organisation, the impression that the Council is practically a closed borough for the surgeons of the metropolitan schools would soon receive its quietus. The next point claiming attention was the intrusion at the last moment of the appeal of the Society of Members. The circular requesting the Fellows to vote for three candidates who had expressed their sympathy with the members' claims contained the following paragraph:—"To govern a great College there is needed a body of men of wide and comprehensive intelligence. To secure a Council of such men we must avoid those persons whose only idea is to glorify their own existence and to remain deaf to all suggestions for improving the College administration, and who refuse to adopt the only course which will make the College of Surgeons a real power for inspiring surgical knowledge and for protecting and guarding surgical practitioners." It is not unnatural that the members should think themselves worthy of a share in conducting the affairs of the College, and that their inclusion would not lower the position, academically and professionally which it occupies at present. It is a matter of some regret that members have failed in this instance to formulate a clear and moderate policy, which might have advanced their cause materially. A plain statement of the main reasons actuating the members to claim a share in the government of the College might possibly have influenced many Fellows in their favour. The Royal College of Surgeons of England is ancient enough to require those fundamental changes in its constitution which sooner or later are essential to all corporate bodies, that is to say, if they are to keep abreast of social evolutionary thought and movement. Most of all is salutary reform needed in a body that is intimately connected with so progressive a subject as that of surgery.

CURRENT TOPICS.

The Museum of the Royal College of Surgeons of England.

A most interesting display of pathological specimens consisting of recent additions to each section of the Museum of the Royal College of Surgeons of England, is now on view in the Hall of the Museum and in Room 1. In his annual report, Professor Arthur Keith, the Conservator, states that the scheme of re-arrangement of the entire pathological collection, sanctioned by the Council four years ago, is on the eve of completion, so far as it relates to the section of general pathology. Some thirty-two cases now hold this latter collection, and others illustrating the biology and experimental creation of neoplasms and the effects produced by the introduction of foreign bodies into living tissues and organs are now in process of being arranged. Special mention may be made of some of the more important gifts received during the year. The "corrosion preparations," illustrating the structural details of the human body, prepared by Dr. Wahby, Professor of Anatomy in the Egyptian Government School of Medicine in Cairo, are on view, and also the curious specimens prepared by Dr. Edwin E. Smith, of the Department of Agriculture, Washington, U.S.A., showing the occurrence in plants of tumour formations of a malignant nature. Both these exhibits were to be seen in the Museum of the International Medical Congress held in London in 1913, where they excited much interest. The preparations made by Dr. Wood Jones, of the uro-genital system of animals presented by the London School of Medicine for Women, and the first model made by Mr. E. T. Newton, F.R.S., showing the detailed anatomy of the brain of the common black-beetle, are well worth a careful examination. Considerable interest is being taken in the specimens of "mule" pheasants, presented by His Majesty King George V. The Archæological Survey of Nubia and the Egypt Exploration Fund have continued their liberal support. Altogether the exhibition is one which deserves at least one visit from medical men and scientists.

Unprofessional Conduct.

There are many occasions on which the conduct of a medical man, while coming short of what would be considered "infamous" by the General Medical Council, is yet what his brethren rightly describe as "unprofessional." It is of some interest to discuss what should be the attitude of members of the profession towards a man whose conduct is habitually or deliberately unprofessional. The conduct must, of course, be habitual or deliberate, for small breaches of etiquette are better ignored. A particular objectionable action may have happened by inadvertence, and medical men should not be too touchy on little points. Where, however, the commonsense of the profession decides that a particular line of conduct deliberately pursued is unprofessional, it is necessary to take steps to bring the fact home to the offender. In the first place, he should be given an opportunity of explaining his conduct, or of withdrawing from it, and, if, necessary, expressing regret. The proper steps for such a purpose are best taken by the local medical society, if there be one. We assume that all this has been done, and the offender remains obdurate in his evil courses. What steps are his brethren now to take? In the first place, it is inconsistent that he should remain a member of any medical society which regards honourable conduct as an essential quality in its members. In the next, honourable medical men will withdraw from him those privileges of courtesy and comradeship which it is customary for one medical man to extend to another. He has abused the privileges of the profession, and he is no longer entitled to them. This withdrawal of comradeship must include the refusal to meet or assist the offender in any professional matter. He is, in fact, to be treated, as far as matters of courtesy are concerned, as if he were no longer a member of the profession. It is sometimes said that such refusal to assist or consult really punishes the offender's patients, and not himself. This is not so. A patient can choose between one doctor and another. If one doctor, by his own action, has deprived himself of certain privileges open to others, it is a matter his prospective patients must weigh in choosing him to attend them or in retaining him in attendance when they learn of his limitations. We will add just two observations on this subject. One is that prior to accepting charge of a patient a medical man has absolutely no responsibility toward him. The other is that if an honourable medical man, out of pity for a sick person, thinks it is obligatory on him never to refuse to meet any practitioner, however disreputable, in consultation, he must hold himself equally bound to meet the herbalist and the bone-setter.

Work.

Work is doing things because we must. They may be things we like doing or not, but the essential thing about them is their necessity. Willy-nilly work is what we must do. When we do it is another question. Sometimes we must do it now, energetically and finally; often we can leave it over till to-morrow. Some of us work for a fixed time and know that, once closing time has come, we are free till the clock comes round again. We often like our work, or even enjoy it. But we feel that enjoyment is furtive and forbidden. "In the sweat of thy face shalt thou eat bread." That was a curse; but we are often in danger of making our particular perspirings a pleasure. The Germans—a plodding race who often miss the prize—have been investigating work. They have been trying to determine the best time for it—a futile waste, for only the few can choose. They agree that the morning is the best time for mathematics or mnemonics, and that a tired mind cannot remember. They are satisfied that school children should not work at night. It is worse than a waste of time, and the effort to make the brain work at all is absolutely harmful. Evening is story time, and always was from troglodytic days. The imagination is unfenced, and wanders in the pastures of the stars. But many men tear up in the morning what they wrote the night before. We *should* have many philosophers at the breakfast table. We do not, because they are not properly awake. All these results are no doubt worth knowing, and their authors have done some little thing to advance knowledge. But most of us cannot choose the time for our work. We work when we must; and our more casual fellow-workers work when they feel like it, or when there is nothing better to do. Anyway, it can do no harm to record the facts.

The Problem of the Germ Carrier.

From the public health standpoint much interest has centred around those individuals who, all unconsciously, scatter the germs of disease and death broadcast. Whether he has or has not suffered from a particular infectious disease the chronic germ carrier who bears in his alimentary or his urinary tract the micro-organism of that disease is a distinct source of danger to the community. In regard to the milk-supply, for instance, it has been shown that outbreaks of infectious disease have occurred from time to time as a result of the employment of persons, who, if not actually convalescent from enteric fever, have nevertheless been carriers of the *Bacillus typhosus*. It is just in relation to cases of this description, as Mr. Herbert Samuel pointed out the other day in a Standing Committee of the House of Commons to discuss the Government Milk and Dairies' Bill, that greater powers of inspection should be provided. The subject was also referred to last week in a lecture before the Royal Institute of Public Health, by General L. Vaillard, the President of the Board of Health of the French Army, who gave an apt illustration of the danger of disease carriers in the case of a certain cook, a chronic typhoid carrier and also a carrier of the Bacillus of Gaertner, who was said to have been responsible for five epidemics of enteric fever in nine years, having been engaged in the preparation of ice-creams for wedding parties and banquets. In the case of diphtheria it is well known that the bacilli are carried in the faces of healthy individuals in times of epidemics of that disease. Segregation would appear to be the only efficient way of dealing with disease-carriers, but the difficulties of bringing the cases under the control of health authorities are, at present, very considerable. It is bad enough to get people to submit to a medical examination when they are ill, but when they are apparently in good health, it is doubtful whether they could be made to present themselves before a physician or a bacteriologist for inspection, except under penalty of the law.

Synthesis.

The trend of scientific research is largely tending towards alchemy. It is true that we are not directly out for the elusive trinity—the philosopher's stone, elixir vitæ, and the alkahest—but we are again synthetic. To early minds it seems more wonderful to create than to destroy. Scientifically Bacon was the first of the great iconoclasts, and after him there was a deluge of disrupted matter. Analysis was endemic, and men saw nothing but the marvels of simplicity. To-day we have experimentally smashed almost all our surroundings, and we are trying to put them together in new ways. There are drugs galore whose artificial nomenclature is no less ingenious than their composition, while their alleged qualities are more wonderful than all. We have synthetic sugar and synthetic rubber; we have heard of synthetic milk—made chiefly from a Chinese bean—which is an ever-present dread. There was an American who tried to manufacture eggs. The yolk, the white and the shell he could do "on his head." He stuck at the skin. He finally perfected it, but the cost of the necessary rubber ruined his enterprise commercially. Synthetic life is no new idea. Men have striven to imitate the masterpiece of the Ancient of Days with soap and oily films. Their amœbæ moved and were still. A story was lately told to the Société Internationale de la Tuberculose. Dr. Alexandre Marey has made "aseptically by the action of the tuberculin of the Pasteur Institute upon sterilised glycero-phosphate of soda" bodies identical alike in form and capacity for stain with Koch's bacillus. What is more marvellous, they grow on potato and guinea-pig just as do their prototypes. If this thing is true we must turn over our ideas. They are probably not true, but nowadays it is more popular to believe than to doubt. "Go round." That is the real way to knowledge. Swift used to call the man who made two blades of grass grow where one did before a benefactor of the human race. We wonder if the same remark is applicable to the multiplicators of tubercle bacilli.

Sanitation in Camps.

In view of the increased number of organisations that arrange for the spending of summer holidays in camp, the sanitary conditions of camp life may well receive more attention from health authorities than has hitherto been bestowed upon them. Some excellent rules with regard to camp sanitation have recently been issued to officers of the East Anglian Division of the Territorial Force, and published in full in *The Medical Officer.* Under the heading of "Responsibility" each unit and the individuals composing it are urged to study sanitation and the laws of the preservation of health. Great stress is laid upon the importance of the prevention of contamination of food and drink. Insufficiency and excesses must be avoided, the latter especially in regard to meat, jams, sweets, tobacco, alcohol, lemonade and cold water. Extra food, such as coffee and biscuits before early parade, and fruits and fresh vegetables are to be encouraged as conducive to health and efficiency. The dangers of refilling water-bottles from just any source and also of filters, except under medical supervision, are pointed out. Some sound advice is given in the matter of the disposal of refuse, as well as in the elements of personal hygiene. Whenever possible opportunities for personal cleansing should be provided and used. A debilitated unit from want of rest or neglect of some vital sanitary principle will figure badly in manœuvres and will be useless in time of war. Attention to the rules and elementary principles of military hygiene will do much to promote the health and good spirits of men, and the same applies, though to a lesser extent, to boys' summer camps.

The Plasmodium Tenue.

An important communication was made at a recent meeting of the Royal Society with respect to a new malaria parasite infecting the human subject. This organism was discovered by Dr. J. W. W. Stephens, Sir Alfred Jones, Professor of Tropical Medicine in the University of Liverpool, in a blood slide sent to him from a native child from Pachmari, Central Provinces, India. The peculiarity of the Indian parasite appeared to be its irregularity as compared with the regular, almost monotonous, contour of the "rings" of the malignant tertian parasite (*Plasmodium falciparum*) which it resembles at first sight. In a series of consecutive drawings made by Professor Stephens of each parasite the specific differences of the new organism become apparent. Its most conspicuous features are that it is extremely amœboid, the cytoplasm is always scanty, the parasite having little bulk or density, and the nuclear chromatin is out of all proportion to its volume, being abundant in quantity and very irregular in its distribution. Typical rings are absent or exceedingly rare. It is doubtful, at present, whether the parasite be pigmented or not. After a prolonged study of the morphological characteristics of the organism, it is concluded that it is differentiated thereby from any other malarial parasite of man. The name proposed for it is the *Plasmodium tenue.* Other points regarding its morphology must necessarily remain unsettled until further material be forthcoming.

PERSONAL.

DR. R. A. ASKINS has been appointed whole time School Medical Officer to the Bristol Education Committee.

DR. CHARLES NYHAN, of Ebbw Vale, has been appointed Medical Officer of Health for Brynmawr, in succession to the late Dr. M. Sheehy.

IN memory of their father, Sir William Lawrence, F.R.S., Serjeant-Surgeon to Queen Victoria, and of their brother, Sir Trevor Lawrence, long Treasurer to St. Bartholomew's Hospital, the Misses L. E. and M. W. Lawrence have presented £4,000 to the Royal Society for research into the cause and cure of disease.

DR. T. DIVINE, of East Hull, was the recipient last week of a suitable testimonial in recognition of his valuable services as Hon. Secretary of the local Medical and Panel Committee in connection with the working of the National Insurance Act.

SIR HENRY LUNN, M.D., has purchased the Bridge of Allan Hydropathic, and intends to open it this month under the name of the Allan Water Hotel.

MR. HOWARD JONES, M.B., B.S.Lond., M.R.C.S., L.R.C.P., has been oppointed Honorary Anæsthetist to St. Mark's Hospital for Diseases of the Rectum.

MR. JAMES B. HOWELL, D.P.H., M.R.C.S., L.R.C.P., Assistant Medical Officer of Stepney, has been appointed Medical Officer of Health for Hammersmith.

DR. EVAN ALBAN was the recipient the other day of a suitable presentation from his many friends at Lindfield, Sussex, upon the occasion of his relinquishing practice in the district.

A HANDSOME monument, in the shape of a clock tower, to the memory of the late Mr. Walter Whitehead, the well-known Manchester surgeon, was formally presented to Bury last week.

DR. THOMAS DRUSLYN GRIFFITHS, M.D., D.Sc., of Fern Combe, St. Stephen's Road, Bournemouth, a former President of the British Medical Association, left estate of the gross value of £32,646.

DR. A. P. BEDDARD, M.A., M.D.Oxon., F.R.C.P. Lond., and Dr. E. P. Poulton, M.A., M.D.Oxon., M.R.C.P.Lond., have been appointed respectively Physician and Assistant Physician to Guy's Hospital.

DR. JAMES FULTON, of Woodvale Road, Belfast, was the recipient the other day of a handsome testimonial in token of the high esteem and respect in which he is held by the district. A suitable presentation was also made to Mrs. Fulton.

DR. J. W. ASTLEY COOPER will open a discussion at the meeting of the Society for the Study of Inebriety to be held on July 14th, at 4 p.m., in the rooms of the Medical Society of London, 11 Chandos Street, W., on "Proposed Legislation for Inebriates."

THE following medical practitioners have been placed in the Commission of the Peace for Glamorgan by the Lord Chancellor:—Drs. Peter J. O'Donnell, S. G. Morris, County Alderman Thomas H. Morris, D. N. Morgan, County Councillor W. Evan Thomas, and R. D. Prichard.

CIVIL List Pensions have been awarded to the widows of Dr. R. H. Traquair and Professor N. H. Alcock, M.D., respectively, and also to the daughter of the late Dr. E. H. Willoughby, in consideration of the valuable services rendered by the deceased to medical science as well as in consequence of the inadequate means of support of their survivors.

THE following members of the medical profession have been appointed upon a Committee appointed by the War Office to inquire into the working and organisation of voluntary aid detachments:—Colonel Sir George T. Beatson, K.C.B., Colonel Sir J. R. A. Clark, Bart., Major Sir Anthony A. Bowlby, C.M.G., and Surgeon-General W. G. MacPherson, C.M.G. The Secretary is Lieutenant-Colonel G. B. Stanistreet, R.A.M.C.

MISS SELINA FOX, M.D., at present Superintendent of the Bermondsey Medical Mission, has been appointed by the Home Secretary, on the recommendation of the Prison Commissioners, Lady Superintendent and Deputy Medical Officer of the institutions for women at Aylesbury, comprising the Female Convict Prison, the Borstal Institution for Females, the State Inebriate Reformatory for Women, and the Preventive Detention Prison for Women.

CLINICAL LECTURE

ON

BRONCHIAL DILATATION.

By M. CASTAIGNE, M.D.,

Physician to the Beaujon Hospital.

[Specially Reported for this Journal.]

Cases of simple bronchial dilatation have become rare since we took to looking for bacilli. Debove and Grancher demonstrated the fact that in most instances bronchial dilatation, or bronchiectasis, is of tuberculous origin, at any rate in adults and elderly people.

A patient, 64 years of age, a baker, came to us the other day with a history of having suffered from bronchial dilatation for upwards of thirty years. In the course of his life he had had a whole series of diseases. At 10 years of age he suffered from febrile attacks ascribed to malaria, and, as we know, a relationship between ague and bronchial dilatation has been remarked more than once. Then, too, Hutinel showed that bronchial dilatation, common enough in children, may reappear in the adult, so that this detail is not without importance.

In 1883, when 30 years of age, this patient had an attack of broncho-pneumonia which seems to have been the starting point of the dilatation, for the attack was protracted and was followed by a relapse since which he has always had a chronic cough. But we must not omit to mention that he has been under treatment at the Ricord Hospital for troubles presumably of syphilitic origin.

At the present time the patient complains of cough and copious expectoration. Directly he wakes in the morning he is seized with a harassing cough accompanied by copious expectoration—as much as a tumblerful, he tells us. This presents the characteristic appearances of the expectoration in bronchial dilatation—that is to say, it usually separates into three layers: a lower one which is frankly purulent, a middle layer which is clearer, and a frothy upper layer.

He tells us that, like most of his fellow-sufferers, he is obliged to take certain precautions at night in order not to be awakened and worried by this convulsive cough. It is generally stated that these patients prefer to lie on the affected side, but the contrary is often the case, and that is the case in this instance, for he tells us that he is more comfortable on the opposite side.

In conjunction with these functional signs it is to be noted that there is no hæmoptysis. Now, hæmoptysis is certainly more frequent in cases of tuberculosis, but we must not forget that it is also met with, and this by no means rarely, in cases of simple bronchial dilatation. In support of this statement we might quote the classical observations of Hanot and Gilbert, which are conclusive inasmuch as they were confirmed by *post mortem* examination.

We will now pass on to the physical signs, and here it should be noted that when we are dealing with a tuberculous patient with such copious expectoration as this we generally find a cavity, and this cavity is at the apex of the lung. Here, on the contrary, there is no trace of a cavity at the apices—nor, indeed, any suggestion of breaking down. The physical signs are limited to the left base. At the right base we only hear occasional sibilant râles and signs of pulmonary emphysema.

At the left base we note retraction of the chest wall with well-marked dulness extending into the axilla and exaggeration of vocal fremitus, and on auscultation we hear gurgling sounds, which are louder when the bronchus is partially filled and are at times quite cavernous.

Apart from the clinical signs, other physical means are available for the purpose of verifying the information afforded by percussion and auscultation, especially radiography. At first radiography was only made use of to detect pleural lesions, and from this point of view we know that it yields very valuable data. Then, little by little, as the process became more rapid, it became possible to utilise it in apnœa for the differential diagnosis between a cavity and bronchial dilatation.

This patient was, therefore, radiographed, and inspection of the photograph yields the following information:—The apices are clear, while the lower two-thirds of the lung present a series of patches due to sclerosis and suggestive of bronchial dilatation.

But what are the other clinical elements of the diagnosis? To begin with, we have to ascertain whether this broncho-pulmonary disease, which has been running on for thirty years, has produced in the patient the constitutional effects which we are entitled to expect in pulmonary tuberculosis. Now we find on inspection that his general health is good, seeing that during these thirty years he has been able to continue his work as a baker, a laborious calling, in which all the time he is inhaling dust which is irritating to the bronchi. Owing to this and sundry imprudences on his part, there have been superadded attacks of bronchitis, which have obliged him to lay up from time to time, but in spite of this he has not lost strength to any great extent.

He presents very plainly the so-called Hippocratic fingers, that peculiar bulbous form of the finger ends due to the interference with hæmatosis caused by bronchial dilatation. The heart is not the seat of any disquieting lesion, the patient is not threatened with asystole and his blood pressure is practically normal. Radiology shows a dilated, stretched aorta, a symptom which may be referred to his syphilis. Our assumption that we are dealing with a case of bronchial dilatation and not of tuberculosis is based on both the physical signs and the constitutional symptoms.

The physical signs are: The localisation at the base, whereas pulmonary tuberculosis mostly runs its course in one of the apices, the other showing signs of infiltration, the bases being pretty free. Here, on the contrary, the principal lesions are limited to the left base. This is already a valid reason for suspecting bronchial dilatation. But this is not sufficient. During the last few years it has been shown that we sometimes get tuberculous cavities at the base giving rise to very similar manifestations.

Nothing in this case justifies a suspicion that this might be tuberculous cavity at the base. The auscultatory signs are not quite the same, and radiography confirms this conclusion. Then, too, the sum total of the functional signs is clearly in favour of its being a case of bronchial dilatation.

The constitutional signs militate in the same direction. The retention of a good state of the general health for thirty years without any spitting of blood and without oscillations of temperature is exceptional in pulmonary tuberculosis, while it is constant in bronchial dilatation.

Everything, therefore, points to the latter diagnosis, but there is one point which must not be overlooked—viz., the presence or otherwise of the tubercle bacillus. Now, repeated bacteriological examination has invariably proved negative.

But although we have now arrived at the diagnosis of bronchial dilatation, this is, after all, an incomplete diagnosis, since we have merely diagnosed an anatomical lesion which may be due to various causes. At the present time we can distinguish between ordinary and specific causes—the latter comprise syphilis, tuberculosis and a recently discovered affection, oösporosis.

A tuberculous origin has been excluded in this case, but he may easily become tuberculous in certain environments. Nearly all cases of bronchial dilatation start with tuberculosis, says Grancher. It would be more accurate to say that bronchial dilatation may in any instance be due to tuberculosis or may become tuberculous secondarily.

Syphilis has been incriminated on several occasions. Bensaude presented to the Medical Society of the Hospitals a case, completed by radiography done before and after treatment, of a patient with dilatation of the bronchi associated with syphilitic sclerosis of the lung, who greatly improved under specific treatment. We must therefore bear syphilis in mind, and here the dilatation of the aorta is in favour of syphilis. The Wassermann test would give us useful information, and, in any case, we might place him on treatment. But we are not entitled to invoke syphilis solely, it is a secondary infection which has acted on an organism previously enfeebled by chronic bronchial dilatation.

Oösporosis has been investigated principally by Professor Roger and his pupil, Bory who, in a series of cases of bronchial dilatation discovered peculiar rods in the sputum and identified the peculiar rods of the *oöspora pulmonalis*. In these cases iodine is remarkably efficacious.

In the case of this patient, we may conclude that it is one of bronchial dilatation of the ordinary kind consequent upon a broncho-pulmonary affection. It seems that any broncho-pulmonary affection which lasts some time may determine bronchial dilatation. Hutinel has shown that this is the case in children, but in adults it does not appear that acute inflammatory diseases can *per se* determine dilatation. It requires a slow chronic process or some superadded cause. There was something of the kind in this instance in the shape of inhalation of dust.

Now, as to treatment. Our intervention can only be of service at the acute stage, during convalescence from the broncho-pneumonia. The patient must be watched, prevented from committing imprudences, and induced to quit any calling that exposes him to bronchial irritation.

At the advanced stage which this patient has now reached, all we can do is to protect him against secondary infections. The balsams and antiseptic inhalations are useful in order to ward off gangrene of the lung. It is only in the specific forms that we can hope to effect anything of the nature of cure.

During the last few years attempts have been made to intervene surgically. Pneumotomy has been performed, and gives good results in cases of superadded infection and actual abscess of the lung. But pneumotomy is not indicated here, nor could it be in the absence of some such complication. Tuffier has obtained satisfactory results by milder means when the dilatation is strictly circumscribed—viz., by stripping off the parietal pleura and introducing adipose tissue in order to compress the bronchi. This might prove useful in a young subject not over 40, but certainly not in this instance.

Note.—*A Clinical Lecture by a well-known teacher appears in each number of this Journal. The lecture for next week will be by Herbert French, M.A., M.D.Oxon., F.R.C.P., Physician to Guy's Hospital. Subject : "Some Further Therapeutic Points."*

ORIGINAL PAPERS.

CASES SIMULATING APPENDICITIS. (a)

By ROBERT E. KELLY, M.D., B.Sc., F.R.C.S.,

Assistant Surgeon, Liverpool Royal Infirmary, Lecturer on Practical Surgery, Liverpool University.

In reading a paper on appendicitis, one feels that one ought to apologise for treating a subject which has been written on in both lay and medical journals *ad nauseam*. The vast majority of the papers, however, are concerned either with the pathology or the treatment of the disease, and I thought that a short paper on some difficulties of diagnosis might be acceptable to a Society such as this, or at any rate serve as an introduction to an interesting discussion.

When the "New English Dictionary" was begun in 1884, the term "appendicitis" was unknown. At the present time appendectomy is the most frequently performed operation in any large general hospital. In the Royal Infirmary, during the year 1911, 200 cases admitted for appendicitis were operated upon.

In my personal experience of nearly 200 cases of the disease, I find that in a large majority a correct diagnosis has already been made. A small minority remains, however, in which the diagnosis is at fault, and it is my purpose and desire to-night to consider these cases of mistaken diagnosis.

They fall naturally into two distinct classes.

First, those in which immediate operation is undertaken ; and, second, the interval cases.

The former or acute cases are amongst the most interesting of one's experience. It is, of course, highly disappointing, though often unavoidable, to disclose a healthy appendix where one expected to find it gangrenous. Fortunately, a further exploration of the abdomen generally suffices to localise the mischief.

The Interval Class.—This class comprises those cases which after one or more attacks of pain in the right iliac fossa are referred to the surgeon for operation during a quiescent period. Every surgeon will agree that a normal appendix has occasionally been removed under these circumstances. The fact that subsequently he may be called upon to operate for another condition affords a sufficient conviction that the previous diagnosis was wrong.

Now it seems to me that a consideration of these mistakes in diagnosis will prove both more interesting and more instructive than a mere recital of successful cases. I have therefore collected the following from my own case books as a basis for my paper.

(a) Read before the Birkenhead Medical Society.

Of the acute cases I have seen pneumonia, hip-joint disease, kidney disease, and general infections mistaken for appendicitis. In regard to pneumonia one must always bear in mind the examination of the chest, especially in children.

In hip-joint disease, movements at the hip are limited in all directions; whereas, in appendicitis accompanied by flexion of the right hip-joint, the limitation of movement is found to be for extension only, rotation remaining perfectly free.

In kidney disease the diagnosis may be most difficult. A woman, æt. 28, was admitted with a huge abscess extending from the mid-line of the abdomen over the right iliac fossa to the loin on the right side. She had had it for six weeks. On evacuating this abscess the pus which was let out had a distinctly fæcal odour, and in the pus were found four concretions. It seemed obvious from the smell which one usually ascribes to the *B. coli* and the concretions that this was a large appendix abscess. Subsequently, however, it became certain from the urinary discharge that what I had been dealing with was a pyelo-nephrosis, and that the concretions were urinary stones.

An X-ray might have saved this mistake in diagnosis, but incidentally I may mention that I have some appendix concretions which gave well-marked X-ray shadows in the living.

Of general infections I will only refer to two cases. Both were sent to the Royal Infirmary with a diagnosis of appendicitis.

The first was a boy, æt. 14, who had been scalded on the dorsum of his right foot. It was treated at school with some ointment! Twelve days later he was seen by a doctor, who sent him to the Infirmary because he had a rigid right rectus abdominis muscle. The whole abdomen, however, proved to be stiff, and on making a rectal examination the boy showed marked opisthotonus. He was obviously suffering from tetanus, the result possibly of infection from the dressings used to treat his scald. It is interesting that the stiffness of the muscles should first be seen on the same side as the injury. It was suggested about that time (now five years ago) that tetanus should be treated by injecting the anti-tetanic serum over the Rolandic area. This was done, but whether it had anything to do with the boy's recovery I cannot say.

The second case was that of a boy also admitted with the diagnosis of appendicitis. He looked very ill. He had a raised temperature and pulse rate, and he was delirious. The hip-joint was normal. Locally, there was just above Poupart's ligament on the right side a tender brawny swelling, with the skin red over it. The swelling appeared lower than is usual in appendicitis. I suspected acute osteo-myelitis of the iliac bone. Instead of pus I found a mass of glands which I sent to the laboratory to have examined bacteriologically.

I was surprised to hear two days later that the glands were infected with the plague bacillus. The patient was isolated. No fresh development of glands took place, and the boy ultimately recovered.

These last two cases are of academic interest only, and are scarcely likely to be met with again. Error in diagnosis is most commonly associated with disease in the abdominal cavity itself.

This group covers a wide range, and includes cases of—

Gastric and duodenal ulcers,
Gall-stone disease,
Acute pancreatitis,
Intestinal obstruction,
Tubercular and malignant cæca, and
Diseases of the female genital organs.

My youngest and oldest cases of perforated gastric ulcer were both mistaken for appendicitis. The first was that of a boy, æt. 16. The abdomen was of a board-like rigidity, the pulse-rate and temperature were both raised, the lips were blue, and his expression anxious. A stab wound over the pubis indicated free fluid in the abdomen, but an incision in the right iliac fossa revealed a normal appendix.

The stomach was therefore explored, and a hole found in the lesser curve about an inch from the pylorus.

In my oldest case there was at the time of operation a history of sixteen hours' pain in the abdomen. The patient stated that the pain began above the umbilicus; but when I saw him, just before operation, there was no pain at all above the umbilicus. It was entirely confined to M'Burney's spot. Moreover, the whole of the right iliac fossa was exquisitely tender. On cutting down upon the appendix by the usual split muscle incision there was marked œdema in the tissues of the abdominal wall. This appeared to me at that moment to confirm my diagnosis of appendicitis, but his appendix was normal. He had a perforated gastric ulcer.

Could we in either of these cases come to any other conclusion as to the diagnosis? At the age of 16, perforated gastric ulcer is very rare; appendicitis is common. There had been, however, an undoubted history of pain and discomfort after meals. In the case of the old man I don't think that sufficient regard was paid to his definite statement of the first site of the pain. It seems to me that in both these cases the patient's history and statements were not sufficiently considered.

I used to think that by making a small stab wound above the pubis in all cases of peritonitis one could tell by the smell of the free fluid in the pelvis whether one had to deal with a perforated appendix on the one hand, or a perforated stomach or duodenum on the other.

Though it is true, for the most part, that the fluid associated with appendicitis had the so-called coli odour, and that associated with a stomach perforation is inodorous, still, this is not always true, for I have had cases in which the reverse condition was found.

We come now to cases in which a large, full gall-bladder is mistaken for an appendix abscess. Edith M., æt. 25, admitted with a large, tender swelling under the right rectus muscle. Pulse and temperature above normal. In this case there was no history of indigestion or jaundice. She was sent in as an appendix case, and the diagnosis lay between a distended gall-bladder, an appendix abscess, or renal mischief. Operation revealed a very large gall-bladder surrounded by adhesions to the large bowel and omentum, and showing not only pus and stones in its interior, but also some free pus lying between the gall-bladder and the omentum.

In connection with gall-bladder disease, I had a case which presented some very unusual features. Jane H., æt. 40, had been ill some days. No vomiting, no jaundice, some history of indigestion. Abdomen hardly moving at all, and very tender in the right iliac fossa. Temperature 104°, pulse only 90. Her doctor considered it appendicitis;

personally, I leaned towards gall-bladder trouble, as the greatest tenderness was rather above the umbilicus on the right side.

I therefore made a high split muscle incision, so that I might have access to either, should occasion require it. A very red and œdematous gall-bladder presented itself, evidently full of pus as well as stones; but on looking at the appendix region, although that organ itself was healthy, about 1½ ins. above the ileo-cæcal valve there was a hard mass in the cæcum showing a typical ring structure. This would, I thought, just admit a cedar pencil only, and would certainly give rise to intestinal obstruction after the operation, if left alone. Removal of the growth was out of the question. The condition of the patient would not admit of it. I made, therefore, a lateral anastomosis between the ileum and transverse colon. The gall-bladder was brought out through a separate small incision, and the pus and stones evacuated. About three weeks later I removed the growth. This, fortunately for the patient, turned out to be tubercular, and not malignant, as I had feared.

Another curious case was that of a girl, æt. 26. She gave a history of having had, three years before, a previous attack of pain in the abdomen which kept her in bed for a week. On the afternoon before operation, whilst shopping, she was suddenly seized with acute pain in the pit of her stomach. There was also some vomiting. She was seen by her doctor three hours later. The pulse rate was 80°, and the temperature 99. There was severe pain and tenderness over the appendix region, somewhat relieved by ¼ grain of morphia. The doctor saw her again next morning. The vomiting had continued during the night. There was no permanent relief from the pain. The temperature had gone up to 100° and the pulse rate to 90. The tongue was dry and the abdomen rigid.

An operation for appendicitis was therefore advised. I agreed with the diagnosis, although when I saw her she had some pain and tenderness in the left iliac fossa. This I thought was due to the fact that her pelvis had filled with fluid, and was now irritating the left parietal peritoneum.

At the operation the appendix was normal, but there was free inodorous dark-brown fluid in the abdomen. A second incision above the umbilicus was made to ascertain if she had a perforated gastric ulcer, but both the stomach and duodenum were normal. The omentum, however, showed extensive fatty necrosis, and the pancreatic head was glazed with lymph, and somewhat swollen. On further exploration some stones were found in the gall-bladder, so a third incision was made over this organ and twenty stones removed. A fourth incision, a stab wound over the pubis, was made to drain the pelvis, and continuous salines instituted.

This patient exhibited what one might consider a typical history of appendicitis. If the condition of acute pancreatitis had been correctly diagnosed, she would at least have recovered with two scars the less.

I will next consider intestinal obstruction simulating appendicitis. The first of these is the case of a girl, æt. 8, who was seized with acute abdominal pain after partaking of some fruit. Purgatives failed to give relief, and she came into hospital with a lump in the right iliac fossa. Pulse 140°, temperature 101. Intestinal obstruction was complete. The abdomen was moving normally. She looked very ill, and immediate operation was advised. The lump which had been diagnosed as an appendix abscess was found to consist of six or seven coils of small intestine, with mesenteric thrombosis. I resected the gut, but without avail, the girl dying of operative shock some seven hours later.

Another interesting case was that of a boy with almost the same history and objective signs as in the case just mentioned. At the operation the tumour consisted of a mass of coils of small intestine, with thickened and œdematous walls. There was, however, no thrombosis. This turned out to be a case of Henoch's purpura in which the rash did not appear until after the operation.

These cases of Henoch's purpura are somewhat rare, but the mistake of operating on them as cases of appendicitis or intussusception is common.

One must always bear in mind that cases of intestinal obstruction may depend on the sequelæ of appendicitis. A man, æt. 50, was admitted for intestinal obstruction of five days' duration.

There was marked distension of the bowel and a lump on the left side of the abdomen the size of an orange. This patient was found to have a mass of adherent coils of intestine and omentum surrounding some fœtid pus produced by the bursting of an appendix near its tip. This had occurred when the appendix had roamed into its anatomical position, pointing in the direction of the spleen.

Diseases of the cæcum are also common causes of mistaken diagnoses.

The tumour formation of both malignant and tubercular cæca are very apt to be mistaken for appendix abscesses. Sometimes, indeed, the malignant disease may have engrafted on to it some pus formation. A diagnosis of appendicitis in the aged should always be attended by a grave prognosis.

About two years ago, I was asked to operate on a case of appendicitis in a woman, æt. 55. On inquiry, I found that the obvious lump in the right iliac fossa had been there for four months. She had had temperatures, but the lump was so hard that I diagnosed the condition as one of malignant disease. This was further strengthened by the presence of visible peristalsis. On exposing the lump, the growth was so firmly fixed to the posterior abdominal wall that I had to content myself with an enterostomy. Almost exactly twelve months later her doctor told me that the lump had entirely disappeared. I closed the enterostomy.

I, unfortunately, have no evidence as to the nature of that case, but I believe that it was a tubercular cæcum, mimicking, as it sometimes does to a remarkable degree, malignant disease. The cure of the condition followed on the rest given to the cæcum by the enterostomy.

We have in the infirmary at the present time a girl who was admitted with a large tender swelling extending from the loin to the right iliac fossa. It was breaking down on the surface, and the diagnosis lay between disease of the kidney or the appendix. At operation the pus showed typical actinomycosis granules.

The disease had probably commenced in the cæcum.

Lastly, I would like to say a few words about the very common error of operating for appendicitis and finding disease of the genital organs

The very first abdominal operation I ever did was that of a young woman with all the signs of acute abdomen. I felt uncertain as to the cause, and was fortunate enough to have the help of the gynæcologist. We came to the conclusion that as we thought that the appendix was at fault I had better do the operation. I had to remove two large Fallopian tubes distended with pus. I have repeated this error since on two other occasions; but perhaps I may be pardoned if I tell you that they were both in single women.

In another case of pyosalpingitis occurring nine days after confinement, the resemblance to an appendix tumour was remarkable, for the right and diseased tube was 6½ ins. long and 2 ins. thick, and lying on the side of the still enlarged uterus was exactly in the position of the cæcum and appendix. Moreover, the pus from this tube, which burst just as I was getting it out of the abdomen, had a distinctly fæcal odour.

In another woman, æt. 36, also sent in as a case of appendicitis, I had to remove a ruptured ectopic pregnancy.

Even in the male I have operated on a man who had had a previous attack of pain over an undescended testicle.

It had been called torsion of the testicle. On opening the abdomen the testicle was found bound down by adhesions to the posterior abdominal wall and to the cæcum, but in the midst of the adhesions there was an appendix covered by omentum, obviously the result of an old attack of appendicitis.

The appendix itself was distended and full of a mucoid secretion.

So much for the acute cases. They were all mistakes in the diagnosis of acute appendicitis. Yet I think that you will agree with me that not a single case was made worse by the immediate operation, and some of them, I am sure, were benefited thereby. They all recovered with the exception of the mesenteric thrombosis case. The point I would like to bring out is that had these cases been left for an interval operation, in most of the cases the appendix would have been removed without in the least eradicating the prime cause of the mischief.

It is this thought that always strikes me when, in operating on an interval case, I come across what appears to be a normal appendix.

About a year ago, I removed the appendix in the "cold" from a patient who was said to have had three attacks of appendicitis. My patient left the nursing-home two weeks later, but on the very day she reached home she had another of her attacks. I was called to see her, and the site of the pain made it perfectly obvious that her gall-bladder was at fault. She had never had any jaundice. I operated on the next day, and evacuated a gall-bladder full of stones and pus.

Another class of case which presents difficulty is the condition of tubercular glands about the lower end of the mesentery of the ileum. The glands sometimes reach a large size, and by their periadenitis cause adhesions to form round the end of the ileum and lower end of the cæcum. I am sure that this condition very often simulates appendicitis; but the case is usually so mild that it is nearly always operated on in the interval, and then one finds these adherent bands and caseous or calcareous glands as the sole remaining pathology. One has heard a good deal lately of the masses of adhesions about the cæcum which have received the name of Jackson's membrane, and the pathological condition of the ileum known as Lane's kink. Though I have never satisfied myself as to the presence of the latter, I have often seen in these interval cases that, although the appendix appears to be normal, yet the whole cæcum is large and freely movable though united by lateral bands of adhesions to the outer parietal wall. This condition may aptly be called the "floppy" cæcum. It nearly always occurs in young females, and is generally associated with a history of constipation and attacks of pain in the right iliac fossa, which simulate in a remarkable degree appendix attacks. These, I am sure, form the large part of the cases which are mistaken for appendicitis, and which are operated on in the interval. They get well on purgatives, and are the cases which are so commonly cited in favour of the use of purgatives in this disease. They are the exceptions which prove the rule in appendicitis to give no purgative, for, to use an Irishism, they are not cases of appendicitis at all.

Lastly, I need only mention the mistake of confusing recurrent renal colic due to stone in the ureter with attacks of appendicitis.

Now, the foregoing list of cases sounds somewhat formidable, but, as a matter of fact, they form under 9 per cent. of all the cases. Still, in every ten acute cases there will be one in which the appendix is found not to be the source of the trouble, and I am sure that in the interval cases the percentage where the appendix is removed for some other condition will be found somewhat larger.

In a correspondence lately going on in the *British Medical Journal*, Mr. Edmund Owen, in a plea for early operation, insists that the case should be seen repeatedly until a diagnosis is made, and then immediate operation should follow. Dr. Ewart, in answer to this, stated that the rule to operate immediately for appendicitis has a strong tendency to become a rule to operate immediately for suspected appendicitis. It might be well, he says, to face that new situation squarely, and to give the subject of suspected appendicitis its diagnosis, and operative conditions the exhaustive consideration which it deserves. Practically, this has been the aim of my paper, and the conclusions which may be drawn from these few somewhat scattered remarks may be summed up in the following:—

Every pain in the right iliac fossa does not necessarily mean appendicitis, even when accompanied by the signs usually designated acute abdomen. As Murphy has so succinctly stated, there should be no deaths from appendicitis, yet we are still having them. The reason is, that the deaths are due to procrastination. They are due to waiting for the interval, or they are due to the case remaining a suspected one until it is too late. Operation in the first day or so is no more fatal than the operation in the interval, and I think that it is better to have operated and found a normal appendix during the acute stage than to operate and find a normal appendix in the interval; for in the first case one has a chance of discovering the real cause, but, if one waits until the interval, this chance has been lost, and may render two operations necessary instead of one.

It is not generally appreciated that the operation for the removal of the appendix is easier in the first 24 hours than in the interval, for adhesions may then be troublesome. The really difficult operations are those in which appendicitis is complicated by pus formation or general peritonitis.

Even if a mistake is made and the case turn out not to be appendicitis at all, but some other acute abdominal condition, I think we must all agree that the prospects of the patient are materially enhanced by active interference rather than by passively looking on until an unmistakable diagnosis is possible.

And if there is no other condition found at all, and the abdomen is quite healthy, the patient is no worse off by having his appendix looked at then, than having it removed in the interval following the so-called appendix attack.

THE NEED OF PUBLIC LABORATORY CLINICS.

By DAVID WALSH, M.D.,

Senior Physician, Western Skin Hospital, London, W.

By a "laboratory clinic" is meant an institution that combines the work of a clinical laboratory with the actual administration, when necessary, of technical methods of treatment, such as those by vaccines, intra-venous medication, and the like.

The rapid advances of medical science have necessitated the use of many complicated and costly methods of diagnosis. One has only to compare the practice of ten or fifteen years ago with regard, say, to enteric fever, tuberculosis, malaria, and venereal diseases, to realise how vital is the help of an expert pathologist in order to form an accurate diagnosis. Blood examinations are imperative in a large number of cases; sputum must be tested for micro-organisms; and a complicated series of investigations carried out with reference to a host of morbid processes.

The relation of general practice to advanced medical science is well illustrated in the special case of venereal disease, which, above all maladies, demands the services of the clinical laboratory. A great campaign is now on foot to rid the nation of that heavy burden, and a Royal Commission has been appointed to inquire into the subject. As medical men know, many venereal patients come to the special hospitals for the skin, throat, eye, ear, and nervous system, and to those for women and children. Another large contingent applies to practitioners on the Insurance panel, and to others who treat poor patients. In the majority of cases the real nature of their malady is unsuspected by the patients themselves. Happily, it is now possible in obscure cases to ascertain by means of the Wassermann blood test and other methods of diagnosis whether syphilis is or is not actually present, and whether it has or has not been definitely driven out of the system. Moreover, the prospects of cure have been immensely quickened and aided by the introduction of Ehrlich's famous remedy known as "606," or "salvarsan." Unfortunately, the costs of tests and of remedy is so great as to be almost prohibitive if used extensively in the small hospitals, and still more so among patients of the insured class. A similar observation applies to the bacteriological diagnosis of other maladies, and to the vaccine and other modern remedies needed for many infections of a non-venereal character.

The Cost of Modern Methods.

The increased cost and complexity of modern scientific methods involve serious economic results. They threaten to undermine the whole fabric not only of the smaller voluntary charities but also of the immense field covered by the National Insurance Act, and to a somewhat lesser extent by the Poor Law Medical service. By depriving the workman of the chance of speedy relief from his illness this modern costliness throws the burden of his support upon the public purse. In many ways it adds to the already heavy problem of how to deal with the waifs and strays of humanity. In the long run, however, it must be met by the provision of modern scientific methods which may be looked on as a sound investment, inasmuch as it lessens the ultimate burden upon the community of supporting its derelicts. The pressing problem of the moment is how to bring modern medical science to the homes of the poor.

As regards this question of advanced scientific method, existing hospitals may be divided sharply into two classes: first, those that possess well-appointed clinical laboratories, and, secondly, those that are unprovided in that particular way. The latter class are placed in this dilemma: either they must furnish their patients with medical service that is, scientifically speaking, behind the times, or they must send this special work at great cost to a private laboratory. Under the last-mentioned conditions it is obvious that physicians would naturally spare the resources of the hospital by limiting the number of investigations, even if no direct pressure were brought to bear upon them by the hospital management. Much the same may be said of the preparation of vaccines and of special methods of treatment.

The Saving of a Central Laboratory.

Economically, as I have shown elsewhere, (*a*) there would be a great saving in the provision of a central laboratory available for a number of small medical charities. To that scheme I would now add the important suggestion that such a laboratory should be thrown open to private and to panel practice.

My scheme aims at the establishment of a central laboratory and clinic, intended primarily to supply the needs of the Metropolis, but capable of wider extension to the provinces later if such a course were desirable. To this institution all voluntary hospitals, panel and non-panel doctors would be entitled to send patients on certain simple conditions for the testing of blood and sputum: for bacteriological diagnosis: and, generally, for all kinds of clinical laboratory investigation. In addition the institute would, at the special request of the medical man concerned, provide and administer vaccines, tuberculin, salvarsan, and other highly specialised and often costly remedial agents.

An immediate result of the establishment of a central laboratory of the kind would be to bring under the best modern treatment a large amount of disease that is now being dealt with more or less ineffectively. Take the case of the panel doctor, into whose busy hands drift a large proportion of those patients whose maladies demand laboratory investigation. How, for instance, is he to determine whether a doubtful rash is of tubercular, syphilitic, or other origin? Yet the decision may be vital to the health of the patient, not to mention the friends of the patient and the pockets of the ratepayers. What

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(*a*) "The Present Position of Dermatology," *Medical Press and Circular*, Jan. 29, 1913.

a boon it would be to the overworked panel doctor, harassed by many such perplexities in his day's work, were he able to send off his patients to have a diagnosis made or confirmed, to be followed, if necessary, by appropriate treatment! He himself has neither the leisure, nor the special experience, nor the means, nor the appliances for carrying out highly technical and costly modern scientific methods. In the case of the voluntary medical charities the assistance of a central laboratory could hardly be otherwise than valuable. Hospitals are often so crowded, especially in their out-patient departments, that it is impossible to give to individual patients the amount of time and care that is required if scientific justice is to be achieved in each case. In a word, to all medical men who have to see poor patients a central laboratory and clinic such as that under discussion should prove an invaluable aid to the proper performance of his duties.

The Scheme in Outline.

What would be wanted to carry out such a scheme?

First of all, premises would have to be secured in a central situation convenient for the purpose of a laboratory and clinic, the prominent features of which would be:—

1. A well-equipped clinical laboratory with various departments, having a staff of expert salaried pathologists.
2. A clinical out-patient department for the administration of vaccines, salvarsan, and other special treatment by a staff of medical assistants.
3. Both the laboratory and the clinical departments would be placed under the charge of a salaried medical superintendent (part-time appointment).
4. The administrative staff would require a secretary, a matron, a nurse, a cook, wardmaid, and porter.
5. It would be well to have ten to twenty beds available for male and for female patients whom it might be advisable to keep under observation for one night after the administration of certain remedies by intravenous methods.

The cost of the premises and the equipment of the laboratory and of the organisation as a whole would not be great, as things go nowadays; certainly nothing like the vast sums that have been recently lavished upon more than one institution for special treatment, the therapeutic claims of which are still largely of a tentative character. On the other hand, the proposed laboratory and clinic would go straight to the heart of things and would from the first moment of its existence put into the hands of the medical profession the means of dealing with a vast amount of disease in its more insidious forms.

Sooner or later, it may be assumed with a fair amount of conviction, the State will be compelled to furnish some such free laboratory organisation if the principle underlying the National Insurance Act—namely, the supreme necessity of guarding the health of the individual citizen—is to be logically maintained.

For the funds necessary to the carrying out of the scheme I would apply to:

1. The philanthropic public.
2. The small hospitals, which would benefit largely from the laboratory clinic.
3. The King Edward and the other great distributing hospital agencies, inasmuch as the suggested laboratory clinic would (*a*) lessen the burden on the special and the smaller hospitals, and (*b*) greatly increase the efficiency of their work.
4. Subsidy from the State on the ground that the efficiency of the panel system would be greatly increased were a central laboratory and clinic available. (It is within the power of the Insurance Commissioners to sanction grants of the kind.)
5. The payment of small fees by institutions sending patients and by panel and non-panel patients on the guarantee of a medical man that the applicant is unable to pay ordinary medical fees, but is in a position to make a small contribution to the laboratory clinic. (Indigent persons would, of course, be treated free.)

It may be that amid the conflicting interests which mark the voluntary medical charities of the Metropolis a practical scheme such as that above outlined may not at present find a footing. On the other hand, it may perhaps win approval from one or more of those philanthropists whose generosity appears to be well nigh inexhaustible.

Since the above scheme was outlined in December, 1913, its chief features have been adopted by the Chancellor of the Exchequer in regard to the Insurance Act. In his Budget of 1914 Mr. Lloyd George is providing for the cost of bacteriological, X-ray, and other highly specialised medical treatment for the free use of panel practitioners.

The fact that the State is about to establish free public laboratories does not do away with the need of my scheme. There is plenty of room for a consultative institution for persons who, although not of the insured class, are nevertheless not in a position to pay ordinary consultant and specialist fees. The scheme, in order to bear its fullest fruit, should be connected with a resident hospital in a healthy suburb for the purpose of treating cases which after the fullest scientific investigation are likely to be materially benefited by indoor hospital attention. Any attempt to deal with chronic or hopeless cases would simply detract from the value of the clinic hospital to the curable. In the same way there should be a clinic convalescent home at some seaside place, available for the treatment of cases which after full scientific investigation it is concluded may reap a real benefit from rest and change amid healthy surroundings.

Under present conditions our hospitals and convalescent homes are occupied by many patients who are not likely to receive any lasting and material benefit from their treatment. The clinic is intended to act as a sort of clearing house where the merits of each individual case may be tested, with a view of securing the utmost value from our charitable medical organisations and of throwing open the best modern treatment to those who by lack of system have hitherto had little chance of obtaining sound medical attention and modern treatment in the earlier and curable stages of their maladies. The good that might be effected by a thoroughly equipped clinic is simply incalculable. There would be little difficulty in finding plenty of medical men of the highest skill to help in a scheme, which might be tested by the foundation of a clinic in Central London as soon as there is a prospect of adequate financial support.

Mr. Thomas Henry Pinder, M.R.C.S., L.S.A., of Edenwood, Wilmslow, Cheshire, and of Temple Chambers, Brazenose Street, Manchester, surgeon, left estate with net personalty £23,771.

PREHISTORIC MAN AND HIS EARLY EFFORTS TO COMBAT DISEASE. (a)

BY T. WILSON PARRY, M.A., M.D.CANTAB.

LADIES AND GENTLEMEN,—The President of the North London Medical and Chirurgical Society stands, I believe, in an almost unique position. His annual address is always delivered at the close, instead of, as is customary in other societies, at the opening of each new session. This somewhat topsy-turvy arrangement of things merits at least one compensation. When the little boy was asked by the magistrate, "What were your father's last words?" he promptly replied, "Farver never had no *last words*, Muvver always got those." The president of this Society, not unlike this irrepressible offspring of Mother Eve, is graciously granted the last words, and I wish mine to be those of grateful thanks to you all for the honour you have done me by electing me as your president during the past year.

The subject I wish to introduce to your notice this evening is one relating to the dim and distant past, and is one which, I think, will serve to stimulate the imagination, as well as exercise the more prosaic reasoning faculties. It is always a matter of fascinating interest to delve into anything of a mysterious nature, and the one mystery which, to most of us, far eclipses all others, is that connected with the obscure and inexplicable origin of Man himself. When and in what form did he first put foot upon this planet, and what was the condition of that planet itself that must have cooled to an extent to have permitted the previous introduction of plant, as well as of animal life. At present all seems impenetrable as to the birth of protoplasmic life on this earth of ours, though Professor Sir Edward Schäfer has given us hints of life being chemically formed. If such, indeed, could be proved, how far should we have progressed on our path towards the Unification of Knowledge. At this present moment, however, we must renounce these philosophical speculations and must transport ourselves many millions of years forward, from the creation or formation of what we call "life," to that period in unwritten history known to us all as the Stone Age.

Now the Stone Age must be regarded merely as a stage of culture, as every nation and people on emerging from an animal to a human level, however low, starts with its "Stone Age," passes through its "Copper" or "Bronze" Age, thence through its "Early-Iron" Age, till it eventually arrives at its Historic period, when it begins to depict its acts and its thoughts on stones, pottery, papyri, or coins. The anthropological world is indebted to the late distinguished antiquarian, Lord Avebury, for suggesting the division of the great Stone Age into two parts, namely, the Palæolithic or Old Stone Age and the Neolithic or New Stone Age.

This was no arbitrary division, but a really natural one, and based entirely on geological data. He traced the present geological condition of things back to its source, and this he made his starting-point of the Neolithic Period. In Great Britain and the north-western part of Europe it may be roughly dated as beginning somewhere between twenty and twenty-five thousand years before the Christian Era and lasting till about the year B.C. 2000-1800. It may thus be roughly said to cover a period something like 20,000 years. The Bronze Age succeeded this and lasted till about the year B.C. 500. After this came the Early-Iron Age, which is represented in Britain by the Late Keltic, Early British, or pre-Roman culture.

Immediately preceding the Neolithic Age was a huge gap which cannot well be estimated, but during which geological changes of a gigantic nature were taking place. This is called the Mesolithic Period. During this transitional period many things were happening, the map of the world was undergoing vast alterations, climates were changing, till, in North-Western Europe, to speak of only one portion of the globe, the dry cold of the later Palæolithic Period had given place to a more temperate and rather moist atmospheric condition. This change in climate led to extremely important results. While many of the animals that roamed our woods and forests during the Palæolithic Period were becoming extinct, among which may be enumerated the mammoth, woolly-haired rhinoceros, urus, cave-lion, cave-bear, and sabre-toothed tiger, others sought sunnier climes, wandering south—among these were the hippopotamus, elephant, lion, leopard, and hyæna; others again chose to live in a temperate climate and these embrace our present British fauna, together with the beaver and the aurochs, both of these latter having been now long extinct in this country. A third group of animals preferring a cold climate, to which they had become accustomed during the glacial periods, migrated north or sought the cold mountainous districts of Europe, among these being the musk sheep, glutton, arctic fox, ibex, chamois and reindeer.

And what was happening to Man himself during this long chain of years? In Palæolithic times he was a hunter, living at first by the banks of rivers or on the shores of lakes ("River-Drift Man" he was then called) till he overcame his dread of caves which were dark and gloomy and filled with savage monsters or evil spirits and found the protection they afforded more congenial than his previous rough dug-out homes, situated beside streams or rivers and covered probably by branches of trees and wattles plastered with mud and clay. Having taken to cave-life he began to cultivate Art in a way he had never done before. Although still hunting the mammoth, reindeer and other animals, certain members of his tribe became artists and some of their productions, which we still possess, are of exceptionally high artistic value. We have pictures of the ibex, glutton, wolf, reindeer, mammoth, and other animals drawn on bone, stone and ivory. To two of his carvings I should specially like to draw your attention. One is the conversion of the point of a mammoth tusk into two fleeing reindeers. It was originally probably the handle of a dagger made in one piece out of mammoth ivory and is a beautiful example of true artistic genius. This was discovered in the rock-shelter of Montastruc, Bruniquel, France. The other example is the representation of a mammoth itself, carved out of reindeer horn and was also probably the handle of a dagger. This also hails from Bruniquel. The treasures unearthed in the caves of the Dordogne and other places in France give us an insight into the mind and character of the Caveman. By the skilful way he shaped many of his implements, by the thoughtful manner in which he fashioned his bone needles, awls, sceptres and ornaments for personal adornment, he was evidently a man of high average intelligence. What is our surprise, therefore, to find that when a race had arrived at such a comparatively advanced stage of culture, it should suddenly disappear. But such is the case. Cave-man in France and the British Isles either became extinct or followed the reindeer to the far north, and his descendants may be living in those arctic regions to-day as the race we recognise as the Esquimaux.

(a) The Presidential Address read before the North London Medical and Chirurgical Society in the Board Room of the Great Northern Central Hospital on May 14th, 1914.

Neolithic Man was of a different type to his predecessor. He was not a hunter in the same sense as was Palæolithic Man. I think he may best be described as a farmer, a builder and a surgeon; at least relics of these three, the greatest of his occupations, have been handed down to us. I do not say that individually every Neolithic Man possessed these three accomplishments, for it was possible there were specialists even in those golden days. It is, however, quite within the bounds of probability that a versatile Neolithic Man sowed his cereals on the Monday; hunted on the Tuesday; helped (with lever, fulcrum and mother earth) to raise a ponderous stone of some forty or more tons, some ten or twelve feet on to two stone uprights, in the making of a dolmen, on the Wednesday; flaked flints or hafted polished stone hatchets on the Thursday; fished on the Friday with bone or shell fish-hooks or speared fish with barbed bone-pointed javelins; trephined an unfortunate friend who suffered from fits on the Saturday, and on Sunday gave up his time to worshipping the glorious God of the Sun, who gave him light and warmth and ripened his corn to a golden harvest. Like the wise men of old he came from the East, probably bringing with him animals he had already domesticated, and we can follow his trail all along the north coast of the Mediterranean Sea by the dolmens and cromlechs he has left behind him. He was no modern pretender, but had a genealogy of proud dimensions, for dolmens have been found on the site of ancient Nineveh. And here I may mention in passing that I cannot believe these wonderfully piled-up buildings of massive stone, that have withstood the wear and tear of thousands of years, can have been constructed at the outset merely as ossuaries or tombs, though that they were so is undeniable. I believe some of them were temples and in one at Locmariaquer, in Brittany, called "La Table des Marchands," in which engravings on the end-stone represent rows of full-eared corn-stalks waving in the wind, with a rude picture of a sun in the middle, I cannot but believe that this, at any rate, had once been a temple dedicated to the God of the Sun. Also, I believe, they may have been the palaces of chiefs, for was it not the great wish of prehistoric man generally to make his dead friend as comfortable as possible by imitating his home when preparing his tomb? This was not done altogether from altruistic principles, but because he felt that, if his dead friend were happy and comfortable, he himself would be less likely to be molested by his spirit. The Neolithic Period is divided into three parts: (*a*) The Campigny Period; (*b*) The Robenhausen Period; and (*c*) The Carnac Period. It is this last period, the Carnac Period, that will specially interest us to-night, as we have absolute and certain proof that during this period the surgical operation of trephining was performed.

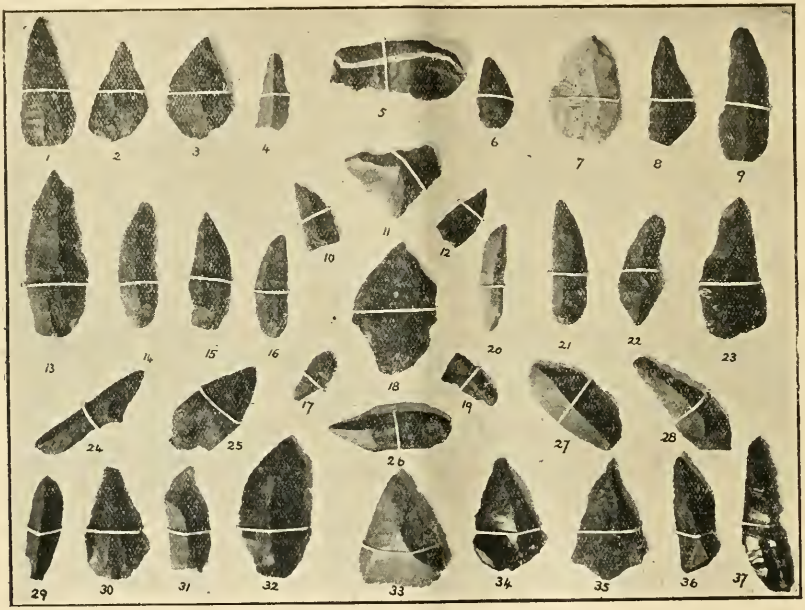


Fig. 1.—Neolithic Flint Flakes as Primitive Surgical Implements.

Nos 1, 8, 13, 14, 15, 21, 24, etc., small sharp knives suitable for trimming edges of lacerated wounds. Nos. 10, 12, 15, 26 and 35, lancets convenient for opening abscesses. No. 11, bone borer. No. 18, implement used successfully as trephine in experiments recorded in this paper.

The above sketches of Palæolithic and Neolithic Man have been given in order to demonstrate that these prehistoric personages were by no means lacking in brains, the former exhibiting specimens of true genius in Art, while the latter produced builders and surgeons of indefatigable and accomplished talent.

To begin at anything like a beginning we must hark back to times much more remote than these, to pre-palæolithic times, indeed, when palæolithic man would be looked upon by us as a cultured gentleman in comparison with those first primeval savages. In those very early days Medicine and Surgery were somewhat different to what they are to-day. Man was then little above the lower animals. His instincts were, therefore, akin to their instincts, and under the same circumstances he would act similarly, only rather more intelligently. The picture that I have of the earliest primitive man, at present, is an admixture of Pithecanthropus Erectus and the Piltdown woman. With the former's cranial capacity of 850 c.c. and the latter's simian lower maxilla and canine tooth we are getting dangerously near our cousins, the anthropoid apes. A large male gorilla may have a capacity of 600 c.c. and there would, therefore be much less distance between him and " the fossil man of Java," than exists between this latter and an average modern European cranium. I need not enter into the controversy as to whether these fossilized human crania belong to the Early Pleistocene or late Pliocene Period. The geologist has strong inclinations towards the former, while the anthropologist has much to say on the latter. Indeed, the very mention of the word " eolith " in a mixed gathering of these two distinguished classes of scientists is apt to act like the sudden appearance of the golden apple of Eris in an otherwise polite and agreeable assembly. I have great faith in what Browning says, "The best is yet to be," and feel that there are still to be unearthed anatomical surprises of unparalleled importance which, when discovered, will necessitate a constant re-arrangement of ideas as fresh material is brought to light.

Now it is well known that animals possess strong self-curative instincts. When they meet with an accident or are stricken with a malady, they endeavour to cure themselves. Let me give a few instances, some borrowed from fact, others from fable, in order to show not only what authentic observation has to say, but also what many of the ancients attributed to the mental processes of the lower animals. Dogs and cats, when indisposed, will eat grasses that have a medicinal action usually of an emetic or purgative nature. (1) The fibrous rooted wheat-grass, *Triticum Caninum*, is frequently eaten by the former. If an animal is ill it seeks out a dark place and starves itself, taking nothing but water. This often is all that is required, as it combines mental and physical rest and a good wash out of all toxic substances. If an animal has been injured, it is noticed to continually lick the affected part, which is a somewhat crude combination of our modern fomentation and massage. Prehistoric Man would most certainly have licked his wounds. Later when he had lost some of his earliest animal instincts he would observe what animals did and imitate them. Thus the use of (2) hellebore was believed to have been discovered from the goat. (3) Virgil tells us that dittany was " eaten by wild goats when they were shot with darts." Pliny gives us one of those delightful fables referred to above, namely, that Bleeding was taught man by the hippopotamus. These are his words: (4) "That intelligent animal, finding himself plethoric, goes out on the banks of the Nile, and there searches about for a sharp-pointed reed, which he runs into a vein in his leg, and having thus got rid of a sufficient amount of blood, closes the wound with clay." Buffaloes, horses and camels are exceedingly fond of licking salt. Prezevalsky says, " On the Mongolian camels salt, in whatever form, acts as an aperient, especially if they have been long without it. Livingstone says that the chimpanzee, soko, or other anthropoid apes will staunch bleeding wounds by means of their finger or of leaves, turf, or grass stuffed into them. And now we once more resort to fiction. (5) Cornelius Aprippa tells us that "The sick magpie puts a bay-leaf into her nest and is recovered. The lion, if he be feverish, is recovered by the eating of an ape. By eating the herb dittany, a wounded stag expels the dart out of his body. Cranes medicine themselves with bulrushes, leopards with wolf's bane, boars with ivy; for between such plants and animals there is an occult friendship." Among birds the snipe appears to be particularly intelligent. M. Fatio quoted before the Physical Society of Geneva the case of a snipe who with his beak and feathers makes a dressing, applies plasters to bleeding wounds, and even binds broken limbs with strong ligatures. M. Magnin corroborated this in the case of a snipe which he observed fly away with a broken limb, and later found with the fragments of the limb forced into a parallel position and there secured by a splint made of intermingled feathers and moss and bound round the limb, in a spiral form, by a flat-leafed grass and fixed by means of a sort of glue. (4) Withington reminds us that a number of these stories that seem improbable must not be entirely refuted, and he cited the fact that Count Mattei, in recent years, declared he discovered his alleged remedies by observing the plants eaten by a mangy dog in the Apennines. So much for what animals and birds do for themselves when confronted with illness or injury. Primitive man did likewise, only always a little more. Now comes the great separation, when Man stepped away from beasts and birds and began to think for himself. Naturally he began by thinking wrongly, and this was brought about by the development of his imagination. And here I may remind you that imagination is one of those forces that, if directed on right lines, is the very impetus that is essential for progress in both Science and Art, and is the true basis of originality and even of genius itself, while, on the other hand, if allowed to run an undisciplined course will produce a riotous confusion of conflicting ideas with delusions of a detrimental or even dangerous character.

At this moment we must pass, and not irrelevantly, to the history of medicine. This has been divided into three great parts by two important landmarks, and these landmarks correspond with the lives of two illustrious men. The first of these was a Greek who was born in the year B.C. 460, and was no other than he who had been distinguished by the title "The Father of Medicine." I refer, of course, to Hippocrates. The second, no less eminent, was, I am proud to think, an Englishman, and his name is a household word among all scientists. I refer to William Harvey. These two men stand for the commencements of two great epochs in medicine and divide the history of medicine into three prominent parts—namely: (1) The period from the earliest primitive times to the coming of Hippocrates; (2) from Hippocrates to the coming of Harvey; and (3) from Harvey to our own time. To-night we are only concerned with the first period of this division, but it is necessary to point out that Hippocrates entirely altered the whole system of medicine, transforming it from a bewildering chaos of superstitious and frenzied fancies to a definite science which had for its aim the careful collecting of symptoms of diseases, the courses they ran and the best treatment that could be applied. No wonder the name of Hippocrates stands out as a shining light in a time of darkness and superstition, when truth itself was at an amazing discount. I said just now that it was the imagination of man that first led him to think wrongly, and I will explain this by saying that the first period in the History of Medicine is known as the Instinctive Period, or the Period of Demonology. It might equally well have been called the Experimental Period, for was it not during this time that Man was making his first tests—and daring tests many of them must have been—to discriminate between various leaves, roots, berries, fruits and fungi to ascertain their dietetic and medicinal values? Now I wish to state here that as embryology epitomises evolution, so the study of the present-day primitive savage unfolds to us the larger history of prehistoric man. It was no doubt the twin mystery of Disease and Death that first stimulated man to think, that is why the Medicine-man and the Priest were one and the same individual at the outset. The position of the Medicine-man in the tribe must have been a most exalted one. In a fascinating book just published on the American-Indian called (6) "The Vanishing Race," this is well shown. "The Indian," it says, "aspires to be a great hunter; he seeks fame as a noble warrior, he struggles for the eagle feathers of distinction, but his greatest longing is to become a Medicine-man and know the Great Mystery." Witchcraft and magic early took a chief part in the treatment of disease, and Demonology reigned supreme for many millenniums. Demonology is based on "Animism," and this latter briefly consists in the belief in the influence of the spirits of dead persons. Animism has its beautiful as well as its hideous aspect. The wide belief among savage races that inanimate objects, as well as animate beings, are all possessed of a spirit has been well demonstrated lately by Maeterlinck's exquisite allegory "The Blue Bird," which shows the happy side of this creed. The unhappy side is illustrated by the reverence bestowed on spiritual monsters and the propitiation required of them. Can we afford to smile or be cynical at such beliefs? Was not the God of the Hebrews on many occasions regarded as a demon of unparalleled dimensions, to wit (7) "The Lord shall laugh at him, for he seeth that his day is coming"? The three chief theories of disease were: (*a*) The anger of a disaffected spirit; (*b*) witchcraft; or (*c*) offended spirits of dead persons. (2) The Mantira, a low race of the Malay Peninsula, believe that there is a separate disease-spirit for every illness (this is not unlike our present germ theory), one for small-pox, one for inflammation of the hands and feet, and one for hæmorrhage; in the latter case the spirit is thought to fasten itself on the wound of the individual and suck out his blood. In the Indian Archipelago disease-spirits are conciliated by presents and dances. (8) In Polynesia every illness is set down to deities which have been offended or which have been urged to afflict the sufferer by their enemies. (9) The Prairie Indians treat all diseases in the same way, as they must all have been caused by one evil spirit. (10) The aboriginal New Zealanders had a separate demon for each part of the body to cause disease. Tonga caused headache and sickness; Moko-Tiki was responsible for chest pains, and so on. The Zulus believe that spirits, when angry, seize a living man's body and inflict disease and death, and when kindly disposed give health and cattle. (11) The Dayaks of Borneo acknowledge a supreme God, but attribute all kinds of diseases and calamities to the malignity of evil spirits. Their system of medicine consists in the application of appropriate charms or the offering of conciliatory sacrifices. Verily the whole world is kin, for we have only to step across the channel into Brittany to-day, to find that similar pagan ideas are still universally accepted there, but, of course, under very different auspices. The Breton's deities are neither Tonga nor Moko-Tiki, but if they are suffering from boils they offer prayers to St. Maudez, if from fevers they petition St. Gonéry. (12) The earth from the tomb of this latter saint is considered a cure for any kind of fever. It is sold in little muslin bags and tied round the necks of the patients. (2) In

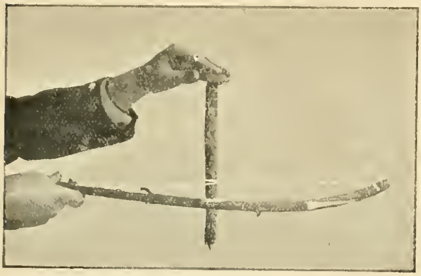
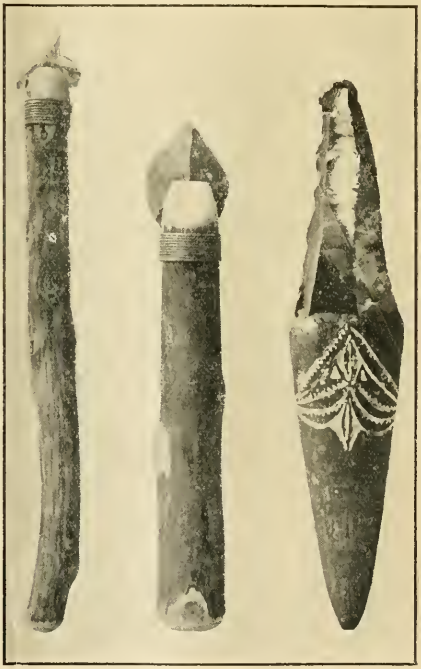


Fig. 2.—Flint-pointed bow-drill used in first stage of trephining skull for removal of rondel of bone.



Figs. 3, 4 and 5.—Primitive Surgical Instruments. Fig 3, hafted shark's tooth; Fig. 4, hafted flint flake; Fig. 5, hafted obsidian flake (Admiralty Island knife).

the XVth century the Catholic Church had a very long list of saints, each of which presided over some special complaint. St. Agatha healed sore breasts, St. Apollonia toothache, St. Benedict stone, St Blaise quinsy and bones sticking in the throat, St. Erasmus colic, and so on indefinitely.

References.

(1) "Pratt's British Grasses," pp. 69, 125
(2) "The Origin and Growth of the Healing Art." By Edward Berdoe.
(3) "Antidote to Atheism." By More.
(4) "History of Medicine from the Earliest Times." By Withington.
(5) "Life of Cornelius Agrippa" (Occult Philosophy), Vol. I., p. 129. By Morley.
(6) "The Vanishing Race." By Dr. Joseph K. Dixon. p. 12.
(7) Psalms of David, xxxvii., 13.
(8) *Journ. Ind. Archip.*, Vol. III., p. 110, Vol. IV., p. 194.
(9) "Folk Medicine," p. 3.
(10) "Folk Medicine," p. 11.
(11) *Ency. Brit.*, Vol. IV. p. 58.
(12) "The Land of the Pardons." By Anatole Le Braz. p. 4.

OPERATING THEATRES.

KING'S COLLEGE HOSPITAL.

Amputation of the Fore-arm.—Mr. Arthur Edmunds operated on a man, æt. about 30, who had been admitted with the following history. The patient had always been a well-conducted, quiet, and inoffensive person in regular employment, with no personal worries except that he had failed in an examination two or three times, and was expecting to hear the result of a further attempt. He had retired to his room, changed his clothes, but he remained for so long a time that his father knocked at his door to see if anything was the matter. Receiving no satisfactory answer, the father insisted on being admitted, when he found that the room was dark and heard his son utter a groan and fall back on the bed. A light was fetched, and it was found that the patient's right hand was almost completely severed. The police were summoned, and a small penknife with which the injury had probably been inflicted was found in the bed. A temporary tourniquet was applied and the patient removed to the hospital. On admission he was found to be suffering severely from shock and loss of blood. On examining the hand, there was a deep incision about an inch above the wrist joint, dividing all the superficial tendons and other structures down to the bone, actually tearing into the pronator quadratus. On the back of the wrist were two small stab wounds penetrating the joint, as if the patient had endeavoured to locate the articulation with the point of the knife. Opposite to these punctures on the front of the wrist was a deep wound dividing everything on the front of the joint, opening the articulation and leaving the hand connected with the arm merely by the skin and the extensor tendons. This remarkable accident was self-inflicted, the patient's expression being that "he had been having a go at himself." Hæmorrhage had stopped to a great extent, and the problem which presented itself, Mr. Edmunds remarked, was whether it would be possible to save the hand, or whether it would be wiser to amputate straight away. The latter course was decided upon for several reasons. In the first place it was very doubtful whether the tag of skin would contain sufficient vascular supply to prevent gangrene; in the second place, any attempt to restore the tendons and to suture the nerves, most of which had been severed in two places, would have required an operation so prolonged as to have been almost certainly fatal; besides it was also doubtful whether under any conditions a useful hand could be obtained. Mr. Edmunds pointed out that it was tempting to adopt an expectant attitude to see how far the circulation would become restored and to allow the patient's general condition to improve; but such a course would be accompanied by a risk of sepsis in a lacerated wound through devitalised tissues. It was therefore considered advisable to perform an aseptic operation through the forearm just above the upper wound. This was done by equal flaps with a circular division of the muscles.

The wound healed kindly, and the patient's pulse and general condition rapidly improved after an intravenous saline injection. Forty-eight hours after the operation the patient seemed quite contented, and referred to his mutilation complacently with apparently no realisation of the disability which the loss of his right hand would entail. A few days later he seemed to lose all memory of the incident except as a sort of vague dream; at no time was he able to give any reason for his act, nor was it possible by questioning his relatives to obtain any clue as to the reason for his extraordinary self-mutilation.

Mutilation of the genital organs, Mr. Edmunds said, was not uncommon among the insane, or among those with morbidly exaggerated remorse for some lapse of chastity, but for a normally right-handed man to hack off his right hand with a small penknife was a problem for which it was difficult to find an explanation.

TRANSACTIONS OF SOCIETIES.

EDINBURGH MEDICO-CHIRURGICAL SOCIETY.

Meeting held July 1st, 1914.

The President, Dr. John Playfair, in the Chair.

A committee which had been appointed at a previous meeting to consider

QUARANTINE AND INFECTIOUS PERIODS,

submitted the following report:—

I.—(*a*) That certain of the common infectious diseases—viz., chickenpox, rubella, and mumps, being of such slight importance from the points of view of mortality or serious complications, may with advantage be ignored as far as quarantine is concerned, the actual patients themselves being of course at once isolated. (*b*) This is not meant to apply to "contacts" attending as day-scholars, or boarders proposing to return to a school which is free from such infection. (*c*) As for all practical purposes the above-named diseases do not occur twice in the same patient, where, in the case of patients over seven years of age, there is evidence that the "contact" has suffered from a previous attack, the above rider (*b*) does not hold. (*d*) As the use of the term "German measles" leads to a serious confusion in carrying out regulations for both "measles" and "German measles," it is strongly recommended that the name "rubella" be substituted for that of "German measles." (*e*) In the case of a patient contracting any of the above diseases, the isolation periods are as follows:—(1) Chickenpox, when every scab has fallen off; (2) rubella, in five days after the appearance of the rash; (3) mumps, in not less than a fortnight from the date of onset, and in not less than one week after the subsidence of all swelling in the neck or elsewhere. (*f*) In the case of "contacts" who have not had previous attacks, the following are the isolation periods:—(1) Chickenpox, in three weeks from the last exposure; (2) rubella, in three weeks from the last exposure; (3) mumps, in 25 days from the last exposure.

II.—*Measles and Whooping-cough.*—The spread of these two diseases is largely due to the fact that they are most infectious before they can be diagnosed; still, in view of their serious character, isolation of actual cases and of "suspects" should of course be promptly carried out. Measles.—Any patient contracting the disease is not to return to school for at least three weeks from the date of the appearance of the rash. In the case of "contacts" who have not had the disease, the period of quarantine should not be less than 14 days. "Contacts" who have had a previous attack may return to school if the patient has been isolated, and efficient disinfection of the contact has been carried out. (This recommendation is subject to modification in the smaller class of houses.) Whooping-cough.—It appears most probable that the infectivity of whooping-cough is associated with the catarrhal stage, and in the absence of complications disappears very shortly after the development of the "whoop." It is desirable, however, for the patient's own sake that he be under careful treatment or observation till the disappearance of the "whoop." In the case of "contacts" who have not had the disease previously, the period of quarantine should be 21 days. "Contacts" who have had a previous attack may return to school at once.

III.—*Diphtheria.*—A patient contracting the disease must be isolated until the condition of the throat, nose, ears, etc., is normal, and until at least two consecutive negative swabs, taken at intervals of not less than 24 hours, have been obtained from the affected parts. "Contacts" should be kept under supervision until two negative swabs have been obtained at intervals of not less than 24 hours.

IV.—*Typhoid Fever.*—A patient contracting the disease may return to school in not less than six weeks from the onset, and after complete recovery. No quarantine of "contacts" is required except in special circumstances.

V.—*Scarlet Fever.*—Patients contracting the disease must be isolated for not less than six weeks from the date of the eruption, and until recovery from all complications, which may have a distinct bearing on the question of infectivity. "Contacts" must observe a quarantine of not less than ten days after efficient disinfection. (It being generally agreed that the incubation period of scarlet fever does not in any case exceed five days, the Committee (with one exception, Dr. Maxwell Williamson), were of opinion that "contacts" might safely return to school in seven days.)

Dr. C. B. KER thought the report was an advance as regards the more trivial infections. He still believed that five weeks' hospital detention was sufficient in scarlet fever. A longer detention just made the patients "carriers" of the disease. Desquamation had nothing to do with infectivity.

The report was adopted.

The report of a committee appointed at a previous meeting to consider the

RELATION OF THE MILK SUPPLY TO THE PREVALENCE OF TUBERCULOSIS

in the City was submitted. The conclusions and recommendations of the Committee were as follows:—

Conclusions.—The general conclusion of the Committee after consideration of all the facts is that infection of children in Edinburgh with the bovine bacillus derived from milk is prevalent. From the absence of data it is impossible to say whether the disease is more common here than in other cities under similar conditions. The Committee is further of opinion that the means taken by the Edinburgh Public Health authorities to secure a non-tuberculous milk supply for Edinburgh are at present insufficient. The Committee believes that at present the only means by which the consumption of milk in Edinburgh can be rendered certainly safe is through its being sterilised by boiling at the hands of the consumer. They are aware that two main objections have been raised to that procedure—namely, firstly, that thereby the nutritive qualities of the milk are seriously impaired; and, secondly, that the sterilisation process destroys certain qualities of the milk and renders children nourished upon it liable to a form of scurvy. With regard to the first of these, the Committee is of opinion that the objection is groundless. It has arrived at this conclusion from a consideration of the evidence collated by Lane-Claypon (Reports to the Local Government Board on Public Health and Medical Subjects, New Series, No. 63, H.M. Stationery Office, 1912), and of similar facts which have come under the observation of its own members and of others whom it has consulted. With regard to the second objection, the Committee apprehends the position to be as follows. If young children during the period when they ought to be nursed by their mothers are fed exclusively on boiled milk, in a certain small number of cases a degree of scurvy may result, but the condition is a slight one and readily yields to simple treatment. In children from the time when they begin to be nourished on a properly adjusted mixed diet, infantile scurvy is practically unknown. It has been stated that children fed on boiled milk are more liable to rickets than where raw milk is used, but in the opinion of the Committee no evidence exists pointing to such an occurrence. Within recent years the argument has been advanced that it is actually a benefit to a child to be fed on the milk of tuberculous cows when this is mixed with a large quantity of tubercle-free milk, in that the children are thereby immunised against tuberculosis and are less liable to infection with the virulent human strain of the bacillus in later life. In the opinion of the Committee this contention is at present unsupported by scientific evidence, and the arguments advanced have been largely of an academic nature. In any case the Committee is of opinion, firstly, that the risk of serious disease being contracted from tuberculous milk must be put against the supposed immunisation effected; and, secondly, that if it were established that the bovine bacillus can immunise an individual against subsequent infection with the human bacillus, there are safer means by which this immunisation can be accomplished than by using living tubercle bacilli given in milk.

Recommendations.—The Committee recommended as follows:—First, that the members of the Medico-Chirurgical Society use every opportunity meantime to urge upon heads of households the advisability of boiling all milk consumed in their families; secondly, that a strong representation be made to the Town Council with a view to the reorganisation of the administration regarding milk examination and the inspecion of cows within and without the city; thirdly, that the Government be urged to carry through at an early date a Milk Bill along the lines of the Bills which have been under the consideration of Parliament

Prof. JAMES RITCHIE said that Koch's view that bovine tuberculosis was non-infective to man was now exploded. The idea that a moderate infection by bovine tuberculosis might be salutary as a preventative of human infection had no scientific basis. It was the duty of the profession to attack, or at least not to encourage any such idea.

Mr. STILES said that he was in the habit of tracing the milk history of cases of tuberculosis in children, and the evidence of bovine infection was overwhelming. He would allow adults to drink tuberculous milk at their own risk if they were so minded, but infants ought to be protected. The larger towns should appoint bacteriologists to examine milk coming from the country. The rural authorities would thus get their bacteriological work done free, but they would have every inducement to see that their milk was free from infection.

The report was adopted.

CORRESPONDENCE.

FROM OUR SPECIAL CORRESPONDENTS ABROAD.

GERMANY.

Berlin, July 4th, 1914.

AT the Congress for Surgery, Herren Meyer and Magnus, Marburg, reported on some experiments they had made on the

SURGERY OF THE KNEE JOINT.

The object was to learn what were the conditions under which mobilisation was restored in joints that had become ankylosed. With this in view they bad opened the joints of rabbits, removed the whole of the cartilage replacing it with other tissues, muscle or fascia, placing these substances between the ends of the bones forming the joint; or in other cases leaving the joints without further treatment than the simple removal of the cartillage. The surprising result of the experiments was that in every case the joint was still movable after recovery had taken place, whether tissue was inserted between the injured ends of the bones or not. The fact was that the ends of all the bones implicated became covered with a fibrous cicatricious tissue. In the cases in which muscular tissue was inserted the fibrous tissue was formed of degenerated muscle, and when nothing was inserted the replaced tissue was granulation tissue that had developed at the ends of both bones. The essential thing requisite for restoration of a movable joint was not the insertion of anything, but retention of function, which was provided for by extension apparatus and the lateral ligaments.

Hr. Payr, Leipzig, followed with

EXPERIENCES IN THE MOBILISATION OF JOINTS.

He employed the transplantation of fascia; this in the first place completed the isolation of parts removed by chiselling or the saw and permitted the development of free bodies in the joint; the flaps of fascia acted best, however, on the blood poured into the joint at the operation. The *technique* was not the same for all the joints. In the knee joint the patella was either at a previous operation or before the skin operation laid in a bed of fat. At the reconstruction a tendon of the peroneus enveloped in fascia was made use of for extension. The Kirschner folding piece was not in use now on account of the danger of its softening, but the operation was performed through two lateral incisions. In order to prevent lateral movement a wide groove was made for the patella, and extension tendon by chipping off the anterior surface of the condyle. At the hip joint there was either resection with the chisel followed by insertion of fascia or osteotomy at the neck of the femur with formation of a saddle joint with a view of providing for movement in two directions.

At the elbow joint the triceps and ulna were covered with a mantle of fascia. At both the finger and wrist joints fat tissue was made use of.

The further fate of nearthroses was studied by careful after examination. No arthritis deformans developed, nor any serious secondary deformity. The thick covering of the ends of the joints resembled that of the tendon sheaths. The newly-formed cavity was to be looked on as a serous cavity which developed in spite of the most extensive extirpation of the capsule. The free joint bodies which were not covered with cartilage showed no change in either size or form. The architectonic structure showed a wide reaching adaptability to function of the newly-formed machine. The deep sensibility and the reflexes were completely retained. They, in fact, satisfied the highest requirements.

The indications for such operations had undergone some restrictions since Payr had had an unpleasant experience in a case of joint tuberculosis.

The speaker then brought forward four cases; one of ankylosis of the hip, two cases of nearthroplastique of the knee joint, one of plastique of the intraphalangeal joint. In all the cases motility was sufficient for the requirements, while the mechanism proved itself reliable. During the last two years the speaker had operated in 22 cases of bloody restoration of function in stiff joints with five failures. The condition of the joint in the case that had been operated on the longest—four years—was excellent and permanent.

In the discussion that followed, Hr. Hesse, St. Petersburg, said that in injury to both crucial ligaments he had replaced them with free fascia with good result. Hr. Göbell had had good results in five cases of injury to the elbow. Hr. Röpke Barmenhad had more good results with bad embedment into injured joints. The customary indications were to be observed, but it had been shown that even with long existing inflammations and fistulæ into the joints success had been obtained after resection and embedment of fat into the joint. Recently he had made use of free transplanted fat flaps for filling up defects after extirpation of a meniscus in the knee joint, as a substitute for a bone in the wrist joint, and in the treatment of congenital dislocation of the hip.

He had operated also in cases of tuberculous disease of several joints. In cases in which there were old fistulous openings the results had been good. The flaps of fat had healed in without the least trouble, the incisions were so made that the muscles were as little interfered with as possible. It was an object to operate with as perfect arrest of hæmorrhage as possible, and to make the operation quite radical. The immobilising dressing remained on about three weeks, especially over the larger joints. The after treatment in tuberculous cases was the same as in others. Treatment had not been so successful in the knee joint cases as in the elbow ones. In one case with suppuration and fistula in consequence of non-healing in one fistula, there was a partial casting off of one of the fat flaps where, however, the motility of the joint was not much interfered with. In some other cases hæmorrhage from movement of the joint had minimised the result as the resection of the condyles had not been sufficient (but for the hæmorrhage it would have been enough). In that case also there was some circumscribed recurrence in the skin, but recovery took place ultimately. In both of the cases, however, the patella remained free over the bolstering up with fat. This was important as regarded retention of the function of the extending musculature, as a later operation for mobilisation had then a better chance of success.

AUSTRIA.

Vienna, July 4th, 1914.

TENTH CONGRESS OF THE DEUTSCHER RÖNTGEN-GESELLSCHAFT.

PROF. PAUL KRAUSE (Bonn), President, presented the report of the Committee on

THE BIOLOGICAL INFLUENCE OF THE RÖNTGEN RAYS ON THE NORMAL TISSUES OF ANIMALS AND OF MAN.

This report opened with a discussion on the influence of the Röntgen-rays on bacteria and on protozoa. Both had been found to remain unaffected by the rays, or affected to a merely unsubstantial degree. Neither in test-tube nor in living tissues was any noteworthy influence observable. Ferments were no more affected by exposure to the rays than were vegetable organic structures. Small living animals were killed by the Röntgen-rays; in case of mice, the lethal dose ranged between 20 and 30 *x*. Experiments on animals will perhaps furnish data for a judicious regulation of the dosage. The fluids and secretions of the human organism were not affected when exposed to the rays in test-tubes. But these exercised a rather considerable influence on the lymphoid tissues, on the bone-marrow, and on the lymph-follicles of the walls of the alimentary canal. The degenerated thymus gland was found to take on regenerative growth under the influence of moderate doses; when large doses were administered it was completely destroyed. The following effects were noted and classified. Blood: at first, hyperleucocytosis; afterwards, hypoleucocytosis. Eyes: the eye was considerably affected; tendency to formation of cataract under exposure was especially noticeable in case of young animals. Nervous system: In young animals, it was found possible to procure a Röntgen-ray effect; not in case of old ones. The growth of young animals was by some observers seen to be influenced. Such influence was not, however, noticeable in the cases observed by Krause. The liver displays but little radio-sensibility; the kidneys just as little. In the growing stage the mammary gland is responsive, and so is the thyroid; neither is so after completion of its development, in any of the animals experimented on. The lungs, bones, and cartilages display little radio-sensibility. Krause had repeated the experiments which were made by other observers, and had constructed large tables of results, which included both his own and those that had been obtained by others. The skin displays dermatitis of the first, second, and third degrees; at later periods secondary changes appear, in the form of Röntgen carcinoma. In one case sclerodermia was observed to occur. The condition of the blood is very amenable to the influence of the rays. The first manifestation of their influence appears in the form of a hyperleucocytosis; this is succeeded by a decline in the numerical proportion of leucocytes present. The presence of leucotoxins is not clearly demonstrable. With regard to the eyes, a stimulating effect on the conjunctiva, cornea and choroid was always observed. A tendency to the formation of a droplet on the posterior surface of the lens was also noticed. Children under the age of three must be warned off from the Röntgen-rays, but they are not injuriously affected by the degree of exposure necessary for diagnostic purposes. The peripheral nerves are not injuriously affected. The President then dwelt on the theories which had been offered in explanation of the influence of the rays on the skin. According to some authorities, the cells were directly affected, especially the young and vigorously proliferating ones. According to others, their effect depended on autolysis. Krause referred to the lecithin hypothesis, and the destructive action of ferments In summarising, he reproduced a table from Wetterer, in which the respective degrees of sensibility of healthy and pathological tissues to the action of the rays were placed side by side, according to the reports of the various observers. And we find that their effects are so graduated that small quantities stimulate, while moderate dosage restrains, and large doses kill.

The Influence of the Röntgen Rays on the Ovary.

Dr. Reifferscheid (Bonn), Vice-president, then read a communication on "The influence of the Röntgen-rays on the ovary in the animal and in the human organism." The author had carried out extensive experimental and histological investigations in this department of research. A serial investigation arranged and carried out on the white mouse demonstrated the fact that in this animal grave degenerative processes were produced in the ovary by exposure to the Röntgen-rays, which are manifested in grades varying from injury of the epithelium of the ovarian follicles to complete dissolution of the same, and to destruction of the ova themselves. Under the influence of large doses even the stroma was greatly injured. In case of larger animals, it was also found that corresponding degenerative processes were produced in apes and dogs, for example. The similarity of histological structure tends indeed to lead us to anticipate that corresponding conditions will inevitably cause the production of similar alterations in the human body. And in fact the experiments which had been carried out by the author of the communication, and which he had applied to seven human ovaries, with a dosage of from 5 to 30*x*, demonstrated the fact that degeneration of the follicular epithelium and of the ova resulted in the same way from the action of the rays. Thus, a positive histological foundation for the therapeutic employment of Röntgen-rays in gynæcology was proved to exist. In addition, the occurrence of hæmorrhages of greater or less extent was always noticed in the ovary which had been experimented on; these he also referred to the specific effect of the rays. He had always found, in every one of a great number of experiments which he made on the living ovary in various animals, that no regeneration of the ovarian structures which had been injured by exposure to the Röntgen-rays was ever attempted. A follicle which had once been destroyed could never be restored. The only example of regeneration observed has been of a vicarious form: when the neighbouring follicles that had nearly reached maturity had been destroyed, while those which had not approximated the stage of ripeness remained uninjured, one of the latter was found to attain maturity after the lapse of some time. This communication was illustrated by many microscopic sections, of which the figures were projected on the screen.

The Biological Effects of the Röntgen Rays.

Dr. Simmonds (Hamburg), Vice-president, made a communication on "The Biological effects of the Röntgen-rays on the Testicles." Here the influence of the rays was manifested solely by their effects on the spermatoblasts—the other cells all remaining unaffected. After having passed through a latent stage of two or three weeks, the spermatoblasts break down, and the seminal tubes are filled with masses of *débris* only. Functional repair is possible through proliferation of the spermatoblasts which have escaped destructive injury; this fact was proved by experiences derived from observation on men and animals, who had been experimentally injured by exposure to the rays. Hand in hand with the disappearance of the spermatoblasts appeared the active proliferation of the intermediate cells, while the fact that the latter carry out the function of producing the internal secretion is proved by the undoubted retention of sexual desire and of other sexual characteristics, even after the complete disappearance of the spermatoblasts. The Röntgen-rays annihilate procreative power, but not manhood. The communication was illustrated with a series of extremely beautiful microscopic slides projected on the screen.

Dr. Körnicke (Bonn-Poppelsdorf), Vice-president, then brought forward a communication on "The Biological Effects of the Röntgen-rays on Plants." In this he depicted the various manifestations of the influence of the Röntgen-rays on the most diverse forms of the vital activities of plants, and discussed in this connection the exhaustive phototrophic investigations which have been made, partly by the author himself, of the influence of the rays on manifestations of movement, circulation of plasma, turgescence, assimilation. formation of chlorophyll, cell multiplication and nuclear division. The net result derived from the whole of those experimental observations may be briefly summarised as follows: the germination of the seed is often promoted, and to a striking degree, by exposure to powerful Röntgen-rays, while, on the other hand, the corresponding rays have a distinctly retarding effect on growth—which retardation comes to be first manifested only after the lapse of some time subsequent to the radiation. The range of this interval depends on the object tested by the experiment, and on its physiological condition at the exact period of exposure to the rays. With moderate intensity of radiation, the retardation of growth was found to be merely transitory; while small quantities of the rays had the effect of promoting growth. No marked difference could be made out between the respective actions of the "hard" and "soft" rays. The various species of plants, and even the different individuals of the same species present wide differences in their degrees of radio-sensibility. Up to the present, no practical application of the results obtained in this way to the objects of agriculture, could be said to have been definitely reached.

II.—Diagnostic Application.—Thorax and Abdomen.

Note.—Report of committee and discussion will be given in our next issue.

FROM OUR SPECIAL CORRESPONDENTS AT HOME.

SCOTLAND.

Dr. W. E. Carnegie Dickson,

Pathologist to the Edinburgh Sick Children's Hospital, has been appointed Director of the Pathological Laboratory, Royal Hospital for Disease of the Chest, City Road, London. Dr. Dickson was Lecturer on Bacteriology in the University of Edinburgh for a number of years, and on the appointment of Professor Ritchie to the Chair of Bacteriology the lectureship was converted into one of applied bacteriology, which Dr. Dickson now holds. He has been a most successful teacher, and has done a great deal of original research in connection with the cytology of the blood and on bacteriological subjects; he is the joint author of a standard work on pathology, and has recently written an excellent small manual on bacteriology.

The National Insurance Act in Scotland.

The administration of the Drug Fund formed the subject of a specially contributed article in the *Scotsman* of June 30th. The writer regards the Drug Fund as the most vulnerable point in the panel system. He points out that in the early days of the Act it was believed that 1s. 6d. would be more than enough to meet demands, and that for this reason many doctors did not practise economy in prescribing. This, however, has been falsified, inasmuch as reports from several Insurance Committees for the first quarter of 1914 show that not only has the Drug Fund been exceeded, but the "floating sixpences" (Drug Suspense Fund) are endangered, and the chemists' bills will have to be discounted. This is a serious reflection on the panel system, and the responsibility of checking it lies with the doctors and chemists, who are the expert advisers of Insurance Committees, and the ultimate guardians of the Fund. The chemists' committees can not only check improper items in the chemists' accounts, but report on extravagant prescribing. It is, however, the fact that in some areas these powers have not been exercised, as the chemists are unwilling to undergo the labour of scrutinising accounts. In Edinburgh, however, the chemists' accounts are gone over month by month, and the doctors' committee has issued a confidential circular to panel practitioners on the importance of discouraging the use of expensive drugs. The Glasgow doctors' committee have gone further in intimating by a similar circular that abuse of the Insurance funds through excessive prescribing may form sufficient ground for recommending the removal of any practitioner from the panel. Of the many ways in which unnecessary expense may be thrown on the Drug Fund the practice of giving repeats to save time in a busy consulting hour may be mentioned. It is agreed that to forbid repeats would have a salutary effect in this respect. It is highly probable that if doctors would stop using proprietary preparations, which are either useless or for which satisfactory pharmacopœial substitutes exist, and would also give up the prescribing of drugs which remain in the pharmacopœia mainly as relics of past empiricism, there would be enough money for standardised modern drugs, serums, and vaccines, etc. Costly preparations which lie on the borderland between food and drugs should also be debarred. In the opinion of the writer of the article, this question of prescribing must be seriously taken up by the doctors' and chemists' committees if they are to meet the onset of those who wish to reinstate the Approved Societies in place of power, or to transmute the panel system, in itself a compromise, into a State Medical Service.

From the second annual report on the Insurance Act, issued the other day, it seems that in Scotland there are just under 1½ million insured persons, two thirds men and one third women. Owing to the present decrease in the population it is not likely that for some time the annual income of the Approved Societies will increase. The number of exempt persons is very few—not more than 8,000. The most important case of exemption is that of the share fishermen, recently decided in Court. The deposit contributors number only 44,000, and they have had an exceptionally light sickness experience. Only 20 per cent. of their claims was not paid in full, owing to lack of funds at the contributors' credit. The number of deposit contributors does not tend to increase. There has been during the year a movement towards absorption of small societies in large ones, which, actuarially, is in the right direction. As regards Insurance Committees, in smaller areas the funds for administration are proving inadequate, and the Commission are considering supplementing these. The magnitude of the work of collecting 1½ million cards is obvious; it has been lessened by changing the duration of each card from three to six months. Still, there are nearly 23,000 lost cards, equal to £2,500, lying with the Commissioners, in spite of every possible step being taken to secure their return to their owners.

A great deal has been heard during the year about sick certificates. The matter has now been simplified by the adoption of a uniform form. The Commissioners are advised that a doctor acting in good faith would be secure from any action for damages for specifying the patient's disease on a certificate. The cost of medical referees is to be borne on societies' administration funds. As regards maternity benefit, doctors' and midwives' fees have increased over the whole of Scotland from 20 to 50 per cent., and the attendance given is better than before the Act. There is also an increase in the number of confinements attended by doctors, and a decrease of from 15 to 35 per cent. in those attended in maternity hospitals. Cases of mis-spending maternity benefit have been very rare. Medical benefit has worked smoothly on the whole. The introduction of the medical card as a voucher, which was the chief change during the year, is proving satisfactory to all concerned. The great difficulties presented by the index registers kept by the Insurance Committee are referred to. These are in effect the censuses of a constantly fluctuating population, and the expedients for paying the doctors for the persons on the index slips who have not chosen doctors are mentioned. It is well known, of course, that this question of the indexes is by far the greatest difficulty that clerks to insurance committees have to contend with. The report contains a number of other points of interest, to which we shall refer next week.

Advance in the Treatment of Infectious Disease.

At the farewell dinner given to Dr. John Brownlee on his leaving Ruchill Hospital to be statistician to the Medical Research Committee in London, there were present Dr. T. K. Dalziel, Dr. J. C. McVail, Dr. A. K. Chalmers, Professor T. K. Monro, Mr. A. E. Maylard and others, the company numbering about 120. In replying to the toast of the evening, proposed by the chairman, Dr. Gibson, Professor of Mathematics in the University, Dr. Brownlee said that he had been for 14 years a superintendent of hospitals in Glasgow, and having a fair acquaintance with the whole of the modern developments of science as regarded immunity and treatment, he wished to say a few words in regard to the future of fever hospitals. The next great advance in medicine must come from fever hospitals. The great bulk, practically, of the scientific work which had been done during the last 20 years in medicine had been done from the point of view of infectious disease. He had received every consideration from the Corporation of Glasgow; he had an equipment at Ruchill which no other fever hospital in the country had. He had no doubt that the committee in Glasgow would realise that as they must supply laboratories, they must also supply sufficient men.

Incorporated Glasgow Dental Hospital.

The annual general meeting of members and subscribers was held on the 30th ult. Among those present were the Dean (Dr. W. D. Anderson), Councillor Dr. Henry Whitehouse, Dr. Stromier, and Dr. Webster. The total number of patients during 1913 was 16,078. During the year 27 students joined the Hospital for the full course of two years, and in addition 18 students for shorter periods, averaging three months each. The Chairman, Deacon-Convener Beattie, said the work done at the Hospital was remarkable and the expenditure really small. Ex-Deacon-Convener James Macfarlane was appointed Vice-President of the Hospital and Chairman of the Board of Governors.

Natural History Society of Glasgow.

Although materia medica is threatened with expulsion from the medical curriculum, neither botany nor zoology is seriously menaced. At a meeting of the Natural History Society of Glasgow, Mr. James Stirton, M.D., exhibited some very rare mosses. Among them was Amblystegium Juratzkanum Sch., which was got in very fine fruit in the Botanic Gardens, Glasgow, and Barbula Obtusula Lindb., from Bridge of Allan, a moss that has not hitherto been found out of certain parts of Sweden. Mr. John R. Lee exhibited, with notes, the following mosses:—Webera Proligera Bryhn., a new record for the Clyde, from Drumchapel; W. Polymorpha Schp., from Ben Narnain; and Trichostomum Tenuirostre Lindb. var. Daldinianum De Not., from Glenfalloch. Mr. D. A. Boyd read a paper on "The Microfungi of the Clyde Area," giving a number of new records. Mr. John Paterson read a paper on "The New Forest," giving a short account of the main features of the forest, and showing how these affected the plant life, in particular the tree forms, on which some interesting notes were made. An instructive account of the bird life of the forest was also given, with many valuable observations on some of the rarer species.

Ante-Natal Hygiene.

Dr. A. K. Chalmers, Medical Officer of Health for Glasgow, has been reading a paper at the annual conference, held at Liverpool, of the National Association for the Prevention of Infant Mortality. His subject was "Ante-Natal Hygiene and its Relation to Still and Premature Births in the First Months of Life." In the course of his address he said that from a table relating to Glasgow and dealing with deaths in the first four weeks from several causes per 1,000 births during 1909-11, it was shown that the principal cause was immaturity. In conclusion Dr. Chalmers said that Dudley and Ballantyne especially had recently focussed the argument for the registration of still births in a convincing manner, and that until by some such means the causes of pre-natal death could be inquired into, much of the obscurity which surrounded post-natal deaths from immaturity would remain.

LETTERS TO THE EDITOR.

[We do not hold ourselves responsible for the opinions expressed by our Correspondents.]

IMPERIAL ASPECTS OF THE POPULATION QUESTION.

To the Editor of The Medical Press and Circular.

Sir,—To those who recognise the full significance of the falling birth-rate as a prime factor in shaping the destiny of our country and our empire, it is satisfactory to notice the increasing attention which it is gaining from statesmen and the Press. Not only the Medical Press and Circular, but also the *Times* of to-day, July 1st, has a leader on this subject. Neither you nor your great contemporary, however, take note of the fact that we are following the example of France, and that the movement already finished in France is extending gradually through every stratum of our people except the lowest. Our birth-rate is rapidly falling, and in a few years we shall be, like France, unable to make any response to the call for people of their own blood now being more and more insistently given forth by our colonies and great dominions. It is this call that is now being uttered in a remarkable correspondence in the *Times*. The situation of France in this regard was set forth in a lengthy telegram from the *Times* Paris correspondent on Friday last, June 26th. He there speaks of the "alarming decline of the French birth-rate . . . which is still more disquieting when compared with the statistics of other countries." France has not enough men for her home requirements and for national defence. She receives a great number of immigrants yearly. She has now 1,500,000 foreigners permanently domiciled on her soil. The gradual naturalisation of these has helped to build up the nominal increase that France has been able to show since 1871. The workers among the foreign colony are filling places that might all be held by Frenchmen if the supply were equal to the demand. The whole situation was exhaustively discussed from every point of view at the Paris Congress of Hygiene in May last year. Extreme limitation of births forms a gigantic system of artificial selection favouring the survival of an inferior stock, and promoting race decay. Lack of numbers—as pointed out by M. Ribot and Mr. Léon Bourgeois, wise and tried patriots—has laid France at the mercy of Germany, and destroyed all hope of making her an imperial power. In these islands the latest elaborate analysis of the birth-rate statistics for the last 50 years was published some months ago in a report by Dr. Dudfield. A summary and criticism appeared in the *Times* and your paper during February. Dr. Dudfield expressed the belief that the decline of the birth-rate would continue, and urged that in order to cope with it every effort must be made to reduce the mortality among infants and young children. Not to speak of India and our vast albeit minor tropical and sub-tropical colonies, which, thanks to medical science, are becoming more and more fitted for European settlers, our great dominions could take and absorb for some hundreds of years much more than what was looked upon as our "normal" increase during the expansion period of the nineteenth century. If the Empire, besides remaining under the flag, is to continue really British, we shall need a population vastly exuberant and of the highest physical and ethical quality. At present a large section of our people are being constantly reared as hopeless wastrels. Many are physically incapable in consequence of the perfectly preventable diseases through which they have passed in early life. Another great section remain useless citizens owing to an educational system that leaves them untrained, to form the class of totally unskilled labourers. The efficacy of the means by which all these evils can be mitigated and speedily put an end to has been proved by experiment. The number of our unemployables can be reduced to a minimum. We need not compel our surplus to go. We might offer a home across the seas to every decent subject for whom a place could not be found in these islands, and we could make the conditions so attractive that multitudes would avail themselves of the opportunity. The falling birth-rate is no doubt due to economic pressure among some sections of society. For this remedies might be found, and it is to be borne in mind that children are the emigrants most in demand. The fall in our birth-rate is most conspicuous among the well-to-do and wealthy, the classes upon whom the rearing of a large family imposes no real burden. The motive in most of these cases in these islands and in France is entirely anti-social and anti-patriotic egoism. It is the symptom of a moral disease which, as the French experiment has proved, is fraught with danger to our country and our empire.

I am, Sir, yours truly,
Henry Sewill.

The Old Rosery,
Earlswood Common.
July 1st, 1914.

OPEN SPACES AND PUBLIC POLICY.

To the Editor of The Medical Press and Circular.

Sir,—Discussing the root causes of the evils described by Dr. Fletcher Little in my last letter I wrote as follows: "No people with any feeling for beauty would allow for one day in the very centre of the capital of the Empire the existence of that queer jumble of incongruous caricatures of architecture and art formed by Trafalgar Square." It is interesting to note that a leading writer in the *Temps* has, since my letter appeared, expressed the same view. M. Abel Hermant, who has lately visited London, describes Trafalgar Square as "The most frightful place of the kind in Europe, and the National Gallery the most meanly insignificant of any public building. It is really astonishing that so little has been done to improve the square, which is the gateway to Parliament and the West End, and is the first space upon which the eyes of foreigners rest when they arrive at Charing Cross. Why not impose a dignified style of architecture upon the surrounding buildings? The haphazard methods of London builders and the utter indifference of the authorities to any kind of æsthetic beauty have surely had their day."

The answer to M. Hermant is that suggested in my letter—the British people at the present day lack the æsthetic sense which is an indispensable attribute of a really civilised race.

I am, Sir, yours truly,
An Architect.

July 4th.

Mr. A. Hopewell-Smith, L.R.C.P., M.R.C.S., L.D.S., John Tomes Prizeman of the Royal College of Surgeons of England, and Surgeon and Lecturer on Dental Anatomy and Physiology at the Royal Dental Hospital of London, has been appointed to the Chair of Comparative Odontology and Dental Histology which it has been decided to establish in the University of Pennsylvania at Philadelphia.

OBITUARY.

DR. C. T. VACHELL, OF CARDIFF.

We regret to record the death of Dr. Charles Tanfield Vachell, J.P., the well-known Cardiff physician, which took place on the 2nd inst., at Clifton, where he had been undergoing treatment for a chronic malady. The deceased, who was born in 1848, qualified M.R.C.S.Eng. in 1869, and became M.D.Lond. in 1874. After holding house appointments at King's College, London, and at the Glamorgan and Monmouth Infirmary, he became attached to the medical staff of the Cardiff Infirmary. Dr. Vachell was Consulting Physician to King Edward Hospital, Cardiff, an ex-President of the South Wales Branch of the British Medical Association, President of the Cardiff Naturalists' Society, and Honorary Curator of the National Museum of Wales. He was also formerly a Surg.-Lieut.-Col. of the 2nd Glamorgan Volunteer Artillery. Dr. Vachell took an active part in Welsh educational affairs.

REVIEWS OF BOOKS.

AIDS TO MEDICINE. (*a*)

The object of this little work is to supply the student with a book for revision purposes of a convenient size to carry about, and provided its use is limited to such purposes we consider that the publication is of undoubted service. There is given a brief *résumé* of the chief points regarding ætiology, diagnosis, pathology, treatment, etc., of the more important medical diseases. The book has been revised and some new matter has been added. We are rather surprised to find that the author has placed chorea under the heading of nervous diseases, as this hardly coincides with the more modern conception of the ætiology of this affection. We might also suggest that a short section on bacilluria should be included in the next edition. Judiciously employed, this small volume should prove useful, not only to the medical student on the eve of his examinations, but also to the busy practitioner as a refresher to the memory of many useful items of knowledge too easily forgotten in the rush of everyday work.

HERBAL SIMPLES. (*b*)

If the "culling of simples" be a lost art in the twentieth century it is because the claims of herbal physic to therapeutic recognition have hitherto been based more or less upon empiricism. But there are signs that the remedial properties of many of the despised herbs, seeds, and roots of the gardens and the countryside are beginning to be more appreciated as medicines. Scientific analysis has pointed out the virtues of many an obscure plant, so that at the present time the orthodox practitioner need not consider the use of approved herbal remedies beneath his notice when his customary medicines fail or are beyond speedy reach. For those desiring a detailed exposition of the healing remedies of every conceivable medicinal plant the work of Dr. Fernie may be cordially recommended. The veteran author, with a charm of language all his own, has, in the third edition of this unique handbook, incorporated several portions of his "Meals Medicinal," and he has given us a delicious compendium of folk-lore, medical history, botany and pharmacology. Its pages are redolent with classic extracts and fragrant with the odour of rare and precious herbs for use in the healing of mankind. Here will be found all that is worth knowing about lavender and lettuce, mushrooms and mint, seaweed and spinach. The text deals with each "simple" in alphabetical order, and there is an index of diseases indicating the appropriate herbal treatment for each. It is a book that may be read and re-read, both for profit and pleasure, and the demand for it is sure to be great.

HEALTHY OLD AGE. (*a*)

The desire to live long and to see many days is innate in the majority of people, but so often the road to old age is anything but smooth, physically speaking. Many of the ills that beset the individual at or near the middle period of life are avoidable if care and attention be paid to hygiene and especially to diet. The little series of essays before us deals specifically with the prevention and treatment of the diseases that belong more or less to advancing years. The author believes that the term of life for ordinary healthy folk should be nearer fourscore than seventy years, and that the extra years should not be those of labour and sorrow. The chief cause of the mortality in persons over sixty years of age is ascribed by the author to vascular and Bright's diseases or to the non-tubercular chronic chest diseases that are so frequently associated with them. Arteriosclerosis, consequently, receives special attention, and the advice given for the reduction of arterial tension, both by drugs and also by diet, is sound and helpful. The author's son, Surgeon Gilbert Bodley Scott, R.N., contributes a chapter upon the preparation of vaccines. Altogether this little book deserves a careful perusal by every medical practitioner.

A HANDBOOK OF HYGIENE. (*b*)

The present edition of this well-known manual, which has long been a favourite with students and practitioners, has been thoroughly revised throughout. The all-important question of the contamination of milk, more especially in relation to tuberculosis, is fully discussed, and recent official reports upon the subject are freely drawn upon. The section upon food-poisoning embraces those conditions due to the ingestion of some chemical poison (ptomaine) or to bacterial infection with organisms of the true Gaertner group. An account is also given of "onchocerciasis," a parasitic affection found in certain Australian and American meat. In dealing with bread, the authors believe that the "agitation in favour of a 'standard' flour will not have proved useless if it results in the creation of a public opinion adverse to any undue manipulation of the wheat during the milling process. Once permit the removal of certain portions of the grain, and the way is left open for chicanery of all sorts." A good account is given of pellagra, which is grouped under the heading of "Intoxications," and the theories regarding the ætiology of beri-beri are adequately discussed. The question of venereal diseases is much more fully dealt with than is usual in a text-book of hygiene, and the authors, while asserting that "compulsory examination and registration of prostitutes is, therefore, merely tinkering with the fringe of the problem," believe that "the general feeling of the medical profession, in this country at least, would certainly not be in favour of what the majority would look on as a breach of professional confidence"—*i.e.*, notification.

The section on communicable diseases and their prevention is packed with information; indeed, it would be difficult to pick out any part of this excellent text-book which is not replete with the latest information upon the subject. In the "Addenda" of eight pages are contained some valuable notes from various official reports bearing upon the different sections of the book. We have pleasure in recommending this work as a trustworthy guide to the science and art of preventive medicine.

(*a*) "Aids to Medicine." By Bernard Hudson, M.D.Camb., M.R.C.P.Lond., Visiting Physician to the Queen Alexandra Sanatorium at Davos, late Assistant Physician to the City Road Chest Hospital, etc. Second edition. London: Bailiere, Tindall and Cox. 1914. Price 3s. 6d. net, cloth.

(*b*) "Herbal Simples Approved for Modern Uses of Cure." By W. T. Fernie, M.D., author of "Our Outsides," "Meals Medicinal," etc. Third edition. Revised and enlarged by some additions from "Meals Medicinal." Pp. xxxi., 596. Bristol: John Wright and Sons, Ltd. 1914. Price 6s. 6d. net.

(*a*) "The Road to a Healthy Old Age." Essays Lay and Medical. By Thomas Bodley Scott. Pp. viii., 104. London: H. K. Lewis. 1914. Price 2s. 6d. net.

(*b*) "A Handbook of Hygiene." By A. M. Davies, M.R.C.S., L.S.A., D.P.H.Camb., Lt.-Col. R.A.M.C. (Ret.); late Professor of Hygiene, Royal Army Medical College, etc. Fourth edition. Revised and enlarged by the author and C. H. Melville, M.B., C.M., D.P.H., R.C.P.Lond.; Brevet-Col., R.A.M.C.; late Professor of Hygiene, Royal Army Medical College. Pp. xxi., 718 London: Charles Griffin and Co., Ltd. 1913. Price 10s. 6d. net.

BOOKS FOR MOTHERS.

The seventeenth authorised edition of Dr. Chavasse's well-known handbook (*a*) upon the management and rearing of children has been re-arranged and re-written by Dr. T. D. Lister. The matter has now been placed in chapter form, thus doing away with the old arrangement of question and answer. The book, which has been a favourite among works of this class, cannot fail to enjoy continued popularity. The general directions with regard to giving drugs to children and to obtaining medical advice are wholly praiseworthy. Some useful lists of appliances, medicines and sundries are placed in an appendix.

Another work of a similar, though less pretentious, character is Mrs. Usher's "Book for Mothers" (*b*), to which Dr. F. B. Rutter has contributed an introductory note. The following extracts will indicate the general character of the book:—"When the child gets a blow on the head, 'Pomade Divine' is the very best thing to put on." "If a child has swallowed a pin or a piece of glass or anything sharp, send for a doctor, as they (*sic*) can now use Röntgen-rays." Nevertheless, there are many useful hints, imparted in a homely style, which serve to render this little work a useful guide to mothers of the less educated classes.

MATERIA MEDICA, PHARMACOLOGY, ETC. (*c*)

It has been said that of late years the art of prescribing is in danger of becoming lost. That it seems to be declining may be due to the fact that the action of pharmacopœial remedies is largely taught apart from the bedside and also because a large number of drugs appear never to be used at all. Drugs, like everything else, have their day, no doubt, but the old and trusted friends need not be entirely shaken off in favour of the newer rivals. In the book before us the author has endeavoured throughout to emphasise the clinical aspect of each remedy described. The first portion deals with the various pharmaceutical preparations, dosage and modes of administration; the second treats of individual remedies, which are grouped according to action. A good deal of physiology finds its place in the sections upon pharmacology. Thus nine pages are occupied with an account of the circulation which precedes a very lengthy description of digitalis and its preparations to which thirty-eight pages are devoted. It is doubtful whether a text book of materia medica need contain an account of the various methods of *producing* anæsthesia any more than a description of the treatment of shock and collapse, and yet these subjects have 19 and 4 pages allotted to them respectively. A succinct account of the principles of vaccine-therapy would have been more in keeping with the general character of the work, and we must confess to some feeling of disappointment at its omission.

However, these are comparatively small points at which to cavil, for Dr. Bastedo's text-book contains far more practical information that is likely to be of real benefit to the student than the majority of similar works. An unique feature is the inclusion of several photographs of various drug eruptions, cardiographic tracings, and X-ray pictures of the intestines. The third section deals with prescription writing, and it contains many valuable hints for prescribers in general. The index, though comprehensive, is far from complete, and it might be amplified with advantage. Taken on the whole, we have pleasure in recommending this manual as being a full and accurate guide to the use of remedies in the treatment of the sick.

CHEMISTRY AND ITS BORDERLAND. (*a*)

This is a good example of a book dealing with scientific facts, popularly written, designed to attract the attention of that reading public glad enough to gather up some pearls of science whose value they can recognise and appreciate. The basis of the work is chemistry, and the author's aim is to show the relationship which this science bears to the other fields of scientific knowledge. In order to render his pages more comprehensible to non-technical readers, the author has dispensed with chemical symbols. Modern advancement has taught us that the sciences with which chemistry has become closely allied are astronomy, physics, geology, physiology and pathology. The development of this theme is simple enough to the understanding of those whose training has been scientific, but so well has the author succeeded in stringing his facts together that even by the scientist, the admission must be made that in the ground covered by the pages of this work, science is presented in a most attractive and lucid light. In the chapter on the relations between chemistry and industry, many facts are disclosed which cannot fail to instruct and interest the ordinary reader, and the same is true in respect to the chapter on immunochemistry and some kindred problems. Radium, again, is a subject to which references frequently occur in the newspaper press, and here we find a concise account of its discovery, its properties and uses, expressed in plain and untechnical language, which will require but little mental exertion on the part of the non-scientific reader. There is a useful chapter on the Organisation of Chemical Research, describing the various channels open to the student in chemistry, by which his studies can be encouraged and helped, as, for example, through the Carnegie Trust, the Beit bequest, and the Research Scholarships. Herein, too, the student may learn the prospects in store for him, by adopting chemical research as a profession. It only remains to be added that the author has produced an interesting and attractive work, thoroughly deserving of a wide popularity.

YOUTH. (*b*)

This series of National Health Manuals is one of the characteristic features of the popular science harvest of the present generation, with its active and avowed object of bringing up the supply of the mental pabulum of the ambulating voter of our city thoroughfares to the standard plane of the wave-front of the science and intelligence of his expert contemporaries. The present excellent booklet well represents the best features of this significant movement, which must have an incalculable influence on the attainments and outlook and consequent achievements of the rising generation. How widely the popular net is cast, and how reliable the quality of its scientific and moral, and generally educational and social, meshwork may be roughly guessed at by reference to the list of headings of the various (twelve) chapters; for the production and standardisation of each of which a distinguished name is found to be responsible. The introductory one deals with the general subject connoted by the title of the volume, followed by consecutive series respectively devoted to: Growth and Development in Youth, Psychology, Hygiene of the Adolescent Girl, *ditto* Boy, Diet, Occupations and Recreations, Disorders, Education, Habits, Ethics, and Citizenship—all of the fruitful, as well as verdant, and often highly troublous period of youth. How important the young persons of our twentieth century must feel themselves, and what a copious supply of reasons is being hourly provided for the support and propagation of this opinion! Full investigation of even any one of the series of endlessly labyrinthine questions discussed in this booklet, would be impossible within the limits of an ordinary review;

(*a*) "Chavasse's Advice to a Mother on the Management of Her Children," etc. Seventeenth authorised edition. Rearranged and re-written by Thomas David Lister, M.D.Lond., Physician, Royal Waterloo Hospital for Children and Women, etc. Pp. 340. London: J. and A. Churchill. 1913. 1s. 6d. net.

(*b*) "Book for Mothers and Nurses on the Management of Children." By A. M. Usher, with introduction by Francis B. Rutter, M.D., F.R.C.S. Pp. 106. London: J. and A. Churchill. 1913. 1s. net.

(*c*) "Materia Medica, Pharmacology, Therapeutics, Prescription Writing: For Students and Practitioners." By Walter A. Bastedo, Ph.G., M.D., Associate in Pharmacology and Therapeutics at Columbia University; Assistant Attending Physician to St. Luke's Hospital, New York City, etc. Pp. 602. Illustrated. Philadelphia and London: W. B. Saunders Co. 1913. 15s. net.

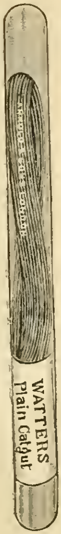
(*a*) "Chemistry and Its Borderland." By Alfred W. Stewart, D.Sc. With eleven illustrations and nine plates. London: Longmans, Green and Co. 1914.

(*b*) "Youth." Edited by T. N. Kelynack, M.D. London: Charles A. Kelly (National Health Manuals).

so we conclude our perfunctory notice by strongly recommending this comprehensive and intensely suggestive subject, and the collective thesis thereon, here presented, to the close attention of every one of our readers.

NEW INVENTIONS.

WATTERS' STANDARD CHLOROFORM CATGUT.



Messrs. Arnold and Sons, surgical instrument manufacturers, have been appointed sole agents for the sale of Watters' standard chloroform catgut.

The principal points and advantages claimed for it are that it is cheap and convenient, and is the only catgut preserved in chloroform, which does not, like alcohol, cause the gut to become hard and brittle. It is easy to work with. The chloroform evaporates instantly, leaving a smooth, dry and pliable material. Another point is its absolute and unquestionable sterility, which eliminates entirely the danger of infection. It is also much stronger than any other, which permits the use of smaller sizes, imposing less of a burden upon the wound in the process of absorption. Its extreme pliability permits of its use just as it comes from the tube. It can be more easily threaded and tied close and fast with the minimum of strain.

It is antiseptic as well as aseptic, which prevents contamination in handling, and guards against the danger of the gut acting as a culture medium for the propagation of infection already in the wound.

Investigations by Major S. P. James, of the Indian Medical Services, show that of the fifty species of mosquito in Colombo only fifteen are harmful. Of the species observed some were previously unknown to science. Henceforward officers of the I.M.S. are to take a two-months' course of tropical medicine immediately on arriving in India.—*Indiaman.*

MEDICAL NEWS & PASS LISTS.

The Royal Medical Benevolent Fund Society of Ireland.

At a meeting of the Central Committee held at the Royal College of Surgeons of Ireland, it was stated that a donation of 20 guineas had been received from the President of the Royal College of Surgeons of Ireland. It was unanimously resolved: "That the best thanks of the Central Committee be given to Mr. Conway Dwyer, President R.C.S., for his valuable donation of twenty guineas to the funds of the Society, and that he be hereby elected a life member of the Society." Urgent applications, which were received too late for the annual distribution, were considered, and grants amounting to £74 were made, and bills amounting to £51 were passed for payment.

The Milk and Dairies Bill.

At a meeting of the Parliamentary Committee on Food and Health, held at the House of Commons, and presided over by Mr. Charles Bathurst, M.P., on Friday last, the following resolution was moved by the Chairman, seconded by Sir W. Phipson Beale, M.P., and carried unanimously:—"The Parliamentary Committee on Food and Health cordially supports the Milk and Dairies Bill and Milk and Dairies (Scotland) Bill, as measures designed to secure to the community an unrestricted supply of pure milk, with the minimum amount of interference with the producer. While recognising them to be capable of improvement in some details, it earnestly deprecates the insistance on drastic amendments, as calculated gravely to imperil the passage of Bills long overdue and of vital importance to the health of the people and especially of the children. The Committee trusts, however, that a clause, sanctioning the sale of 'certified milk,' which in the United States has played so conspicuous a part in raising the milk standard and in forming public opinion in favour of clean milk, will, by general consent and in the interests alike of producers and consumers, be included in both measures."

Naval Medical Reserve.

It is announced that, with the view of affording officers of the Naval Medical Reserve opportunities of keeping in touch with the Naval Service in time of peace, the King has been pleased, by an Order in Council published in the *London Gazette* on June 19th, to approve of such officers being re-employed or undergoing courses of instruction during peace under the following conditions:—(1) To receive full pay at the rate of 17s. a day while re-employed or undergoing courses of instruction; (2) to be under the same conditions as regards pension, etc., in case of death or injury as would be applicable in the event of their being called upon to serve in time of war or emergency.

Medical Meeting at Worthing.

The inaugural meeting of the newly-constituted Sussex Branch of the British Medical Association was held at Worthing the other day. Dr. Ayton Gostling, of Worthing, was elected the first chairman of the Branch. After the transaction of formal business, the members, numbering about 50, were entertained by Dr. and Mrs. Gostling to lunch, and subsequently to a garden party at their residence in Richmond Road.

Royal Hospital for Incurables—Annual General Meeting.

The annual general meeting of the Royal Hospital for Incurables, Donnybrook, was held in the Boardroom of the Hospital last Thursday. Mr. William Fry, J.P., Chairman of the Managing Committee, presided.

The annual report stated:—The Hospital at present contains 213 beds, and during the past year there were no less than 177 applicants for 47 vacancies. Of the successful candidates ten were affected with consumption, nine with cancer, ten with paralysis and nervous diseases, four with cardiac and vascular diseases, four with rheumatism and arthritis, and the remaining ten with various others forms of incurable disease. In addition to filling the beds at each election, and with a view to further extending the benefits conferred by the Hospital on suffering humanity, the Governors elect two patients as pensioners, and who receive a weekly cash allowance from the funds, pending their admission to the Hospital. It is interesting to record that, of the 213 patients remaining in the Hospital on March 31st, 1914, no less than 55, or over 25 per cent., were afflicted with paralysis and nervous diseases. The time spent in the Hospital by these poor sufferers amounted in the aggregate to 417 years 9 months, giving an average of 7 years and 7 months for each patient. These particulars are furnished to prove that, although 140 beds are provided for patients suffering from general or chronic diseases, and but 32 for cancer, and 41 for cases of pulmonary consumption, the mortality in the cancer and consumption wards is so heavy that the Governors are invariably able to elect more cases afflicted with these appalling diseases. The average cost of maintaining a bed, all charges included, amounted to £37 4s. 3¼d., which is practically the same as last year. The average attendance of Governors at the eight elections held during the year was 177, as compared with 158 the previous year. It is interesting to state that at an election for female patients, held on December 16th, 1913, no less than 228 Governors were present in person to vote, a record attendance at an election of patients. The ordinary expenditure side of the account shows a decrease, £7,817 3s. 9d., as compared with £7,885 16s. 10d., which, small though it is, must be regarded as satisfactory, having regard to the increased cost of living and provisions.

University of Durham Faculty of Medicine.

At the Convocation holden on Tuesday, June 23rd, 1914, the following degrees were conferred :—

Doctor of Medicine.—James K. J. Haworth, M.B., B.S.Durh., Eva Lumb, M.B., B.S.Durh., Ralph S. Renton, M.B., B.S.Durh.

Doctor of Medicine for Practitioners of Fifteen Years' Standing.—William O. Beddard, M.R.C.S., L.R.C.P., William H. Date, L.S.A., M.R.C.S., D.P.H., John Flynn, L.R.C.P. and S.E., L.F.P.S. Glasg., Alfred J. Hesterlow, L.M. and S.Madras, William M. M. Jackson, L.R.C.P. and S., L.F.P.S. Glasg., D.P.H., James R. McFerran, L.R.C.P. and S.E., L.F.P.S.Glasg., Edwin Maynard, F.R.C.S., L.R.C.P., D.P.H., John J. S. Pillay, B.A., L.R.C.P. and S.

Master of Surgery (M.S.).—Joseph J. Brown, M.B., B.S.Durh., James C. Young, M.D., B.S.Durh.

Bachelor of Medicine (M.B.).—Cyril Armstrong, Ishmael G. Cummings, Henry H. Elliott, Charles N. Gover, Frank W. Harlow, Maurice H. de Jersey Harper, Cyril Jacobs, Hubert V. Leigh, M.R.C.S., L.R.C.P., Francis Metcalfe, Eric K. Ryan, Herbert J. Shanley, Kirton I. S. Smith, James C. Spence.

Bachelor of Surgery (B.S.).—Cyril Armstrong, Ishmael G. Cummings, Henry H. Elliot, Idris D. Evans, M.B., Charles N. Gover, Frank W. Harlow, Maurice H. de Jersey Harper, Cyril Jacobs, Hubert V. Leigh, M.R.C.S., L.R.C.P., Francis Metcalfe, Herbert J. Shanley, Kirton I. S. Smith, James C. Spence.

Bachelor of Hygiene (B.Hy.).—Arthur H. Wear, M.B., B.S.Durh., Stanley Worthington, M.B., B.S. Durh.

The following received the Diploma in Public Health (D.P.H.).—Arthur H. Wear, M.B., B.S.Durh., Stanley Worthington, M.B., B.S.Durh.

The following received the Licence in Dental Surgery (L.D.S.).—John T. Smith, Sidney Wilkinson.

At the second examination for the Degree of Bachelor of Medicine the following candidates satisfied the examiners :—

Anatomy and Physiology.—William Andrew Hewitson, honours, first class ; Harold M. Leete, honours, second class. Pass list :—Percy V. Anderson, William Duncan, Ernest C. Dunlop, Mordecai J. Erdberg, Charles G. Irwin, Malcolm C. Joynt, Freda Newman, George F. Philip, Harold I. Sterne-Howitt.

The following candidates passed the third examination for the degree of Bachelor of Medicine :—

Materia Medica, Pharmacology and Pharmacy, Public Health, Medical Jurisprudence, Pathology and Elementary Bacteriology.—Honours (second class): Henry Evers, John A. Charles, Arthur E. Raine. Pass list : John F. C. Braine, John Brumwell, Henry C. Broadhurst, George A. Clark, Horace G. B. Dove, John Horsley, Hugh G. Sparrow.

Materia Medica. Pharmacology and Pharmacy, Public Health, Medical Jurisprudence.—Mary R. Campbell, Reginald Arthur Hooper, Norman A. Martin, Carl D. Newman, William O. F. Sinclair, Alfred C. Taylor, Robert Welch, B.Sc.

Pathology and Elementary Bacteriology.—Lionel B. Frere Harold K Graham-Hodgson, James D. Johnson, Douglas O. Richards, Alfred Smirthwaite.

University College, Dublin.

The examiners have made the following recommendations to the Senate :—

First University Examination in Medicine.—Honours : Thomas F. M‘Kinney, M.A., first-class honours Parts I. and II. ; Nicholas Maher, ditto : Michael L. Reynolds, first-class honours Part I., second class honours Part. II. ; John W. Healy, second-class honours Parts I. and II. ; Joseph B. M‘Arevey, second-class honours Part I. ; William J. O'Connell, ditto ; Hubert Macken, second-class honours Part II. ; John F. Cunningham, ditto ; Thomas J. Murphy, ditto. Pass : John J. P. Barry, Sylvester J. D. Boland, Abraham Briscoe, Patrick J. Butterly, Michael J. Byrne, John F. Cunningham, John L. B. A. Doyle, Patrick Doyle, William F. Doyle, Patrick A. Dunlevy, George F. J. Fitzpatrick, John W. Healy, Michael Heffernan, Soloman Lawlor, Joseph B. M‘Arevey, Daniel P. B. A. M‘Grath, Hubert Macken, Thomas J. M‘Kinney, M.A., Daniel A. M‘Laughlin, James P. M‘Nulty, Nicholas Maher, Thomas J. Murphy, Eugene Nolan, James J. Nolan, Maurice M. J. Nolan, William J. O'Connell, Daniel M.ODwyer, Michael L. Reynolds, Joseph E. Rowan.

Pass in Part I. (Experimental Physics and Chemistry).—Eileen M. J. T. Dowdall.

Pass in Part II. (Botany and Zoology).—Florence M. J. Bryson-M‘Loughlin, Connell Carr, Frances Dooley, Patrick T. Garry, John R. M‘Mahon, Bridget A. Moclair, Christopher O'Byrne, Charles J. O'Carroll, Michael J. O'Flaherty, Eugene J. O'Sullivan.

First University Examination in Dental Surgery.—Honours : Alfred J. G. Mills, first-class honours. Pass : Alice M. Connolly, Alfred J. G. Mills.

University College, Galway—Provisional Results.

The following are the recommendations of the examiners at the Summer Examinations, 1914 :

Medicine.—Second-class honours : Michael Hanly. Pass : Michael Beirne, Peter Boylan, Fintan J. Campbell, Michael Hanley, James P. Healy, Michael F. Lavin, James T. M‘Carthy, Patrick Ryan.

Pass in Part I. (Chemistry and Physics).—James Drury.

Pass in Part II. (Biology).—Bartholomew Lawrence, Thomas M. Tobin.

Trinity College, Dublin—School of Physic.

The following passed the preliminary scientific medical examination, Trinity term :—

Chemistry and Physics.—Arthur G. Bewley, passed on high marks ; Richard P. Hemphill, Thomas M. Bentley, Frederick Gill, Robert M. D. Devereux, Percy C. Parr, Lindley Albertyn, John F. Stewart ; Ernest E. Rollins and John W. Scharff, equal ; Joseph Posner, Ernest B. Edge ; William F. M‘Connell, John M. Semple, and Edward F. Wilson, equal ; Thomas H. R. M‘Kiernan and James M. Hill, equal ; James H. B. Levis ; James A. Acheson and Thomas S. M‘Donald, equal ; Daniel M‘Elwee, Johannes C. Fouche, James N. H. Murphy, Thomas B. H. Tabuteau, James C. Campbell-Henry, Philip C. Cowan ; Norman Gray and Samuel W. Russell, equal.

Physics.—Lionel Wigoder.

Botany and Zoology.—Richard P. Hemphill, Lindley Albertyn (James A. Acheson and Richard G. Lewis, equal), passed on high marks ; Edward F. Wilson, Gertrude Rice, William B. Briggs ; Sidney A. Clark and Wilfrid L. Lloyd, equal ; William L. Young ; George H. Davis and John W. Scharff, equal ; Samuel W. Russell ; Ernest B. Edge and Albert H. Thompson, equal ; Charles W. Parr, Henry A. Lavelle ; Robert M. D. Devereux and William F. M‘Connell, equal ; John E. M‘Cormick ; John H. Coolican, Thomas Madill, and John F. Stewart, equal : Ernest F. W. Smith ; Herbert Birney and Eric S. E. Mack, equal ; Ernest E. Rollins and Ivan W. Beatty, equal ; Athanas Blagoff, Thomas R. Warren, Richard N. Nunn, Herbert J. Wright ; George C. Robb and William Sweetman, equal ; Cecil D. L. Shortt, Patrick Casey ; Frederick W. Godbey and William A. Shannon, equal ; Samuel J. Laverty, George R. G. Smyth, John D. Watson.

Botany.—James M. Hill.

Intermediate medical examination :—

Part I.—Edward D'A. M‘Crea, William R. Fearon and Bryan A. M‘Swiney, passed on high marks ; Alexander R. Barlas and Arthur L. Gregg, equal ; Randolph N. Murray, John Duggan, William P. Elford William H. Flinn and Stanley C. Mitchell, equal ; James J. Beasley and Willem P. Lubbe, equal ; Frederick J. Smith ; Charles P. Chambers and George W. B. Shaw, equal ; Philip S. Snell, William

J. M'Clintock, Robert W. Nesbitt, Charles L. M'Donogh, Andrew H. Davidson, Frederick C. Tucker Michiel C. Dippenaar, Hastings H. Molloy, Frederick G. Heuston, John M'Clelland.

Part II.—Thomas J. Lane, passed on high marks; Sydney V. Furlong; Samuel R. Hill and John P. Macnamara, equal; Edward Parker; Frederick J. Murphy and John T. Westby, equal; Frank M'G. Ferguson; Francis A. M'Hugh and Benjamin D. Merrin, equal; John J. Keatley, Rupert Gordon, Grosvenor L. Murphy.

Final medical examination:—

Part I.—Herbert Daniel, Edmund D. T. Hayes, Joseph W. Bigger, Richard W. Shegog, George Joughin, and Violet M. Deale, passed on high marks; George O. F. Alley, David S. Martin, Herbert Mitchell, William F. Wilson, Alan F. Grimbly, Thomas Stanton, Andrew J. Horne, Ernest J. Hamilton, Richard W. Acheson, David H. Hall, Alfred L. Wilson, William J. Dowling.

Materia Medica and Medical Jurisprudence.—Francis W. O'Connor, Thomas G. Roche.

Pathology.—William B. Walker.

Part II.—Medicine: James N. Armstrong and Philip W. M'Keag, equal; George H. Wood, Francis J. O. King, Thomas D. Power, Henry C. D. Miller, John C. A. Dowse, Charles D. M. Buckley, William A. Ryan, Dorothy E. Webb, Francis A. Roddy; Herbert R. Ford and Trevor A. Lawder, equal; William H. Elliott, William O. Tobias, Amy F. Nash, John S. Dockrill, James H. Fletcher.

Surgery.—John C. A. Dowse, Ernest E. Lavy (James C. Ogilvie and Joseph P. Quinn, equal), passed on high marks; Theodore W. Allen and Edward Evans, equal; Fracis S. Mitchell, Charles D. M. Buckley, Robert I. Sullivan; Amos G. Varian and William R. L. Waters, equal; James H. Fletcher and George H. Wood, equal; Frederick R. Dougan, Nicholas H. H. Haskins, Bertrand C. O. Sheridan, and William O. Tobias, equal; Francis J. O. King; James N. Armstrong and Herbert R. Ford, equal; Robert A. Anderson, William M. E. Snodgrass.

Midwifery.—Norman M'C. Boyce, passed on high marks; William E. Tyndall, Robert R. G. Atkins, James S. Robinson, Edmond Robinson, Frederick Harris, Joseph V. Cope, Herbert S. Collins, Clara B. M. Aderley, William B. Cathcart, William M'E. Snodgrass.

Preliminary scientific dental examination:—

Chemistry and Physics.—Henry E. Flavelle, John H. J. Stuart.

Chemistry.—Lionel Wigoder.

Dental Anatomy.—Henry E. Flavelle.

Intermediate Dental Examination:—

Maurice L. Counihan, Charles H. Herbert.

Final Dental Examination:—

Mary de S. Magennis.

Diploma in Public Health:—

Part I.—John R. D. Holtby, M.B.; Edward O'Connor, M.B.; Albert V. J. Richardson, M.B., Surgeon R.N.; Hugh T. S. M'Clintock, M.B.; Kanhaya L. Kappur, M.B.

Part II.—Albert V. J. Richardson, M.B., Surgeon R.N; George H. Culverwell, M.B.; Kanhaya L. Kappur, M.B.; Robert H. C. Lyons, M.B.; Edward O'Connor, M.B.; Hugh T. S. M'Clintock, M.B.

Scholarships and Prize Examinations:—

Surgical Travelling Prize and Bennett Medal.—Arthur Chance, M.D.

Bennett Prize (Surgery).—Georgina Revington.

Medical Scholarships:—

Anatomy and Institutes of Medicine.—Robert C. B. Ramsay.

Chemistry, Physics, Botany, and Zoology.—Harry L. Parker.

Dr. Henry Hutchinson Stewart Medical Scholarship (Anatomy and Institutes of Medicine).—Alan F. Grimbly.

The John Mallett Purser Medal.—William R. Fearon.

The Daniel John Cunningham Memorial Medal and Prize.—Edward D'A. M'Crea.

The Fitzpatrick Scholarship.—John D. Oliver.

The following licences and degrees were conferred at the Commencements on June 30th:—

Licentiati in Medicina, Chirurgia et Arte Obstetricia.—Eduardus Evans, Jacobus Henricus Fletcher.

Baccalaureus in Scientia Dentaria.—Mary de Sales Magennis.

Baccalaurei in Medicina, in Chirurgia, et in Arte Obstetricia.—Theodorus Wright Allen, Jacobus Noble Armstrong, Carolus Dudley Maybury Buckley, Johannes Gillis Butt, Johannes Cecilius Alexander Dowse, Joseph Sandys English (antea Lic.), Herbertus Roycroft Ford, Nicholas Hopkins Henricus Haskins, Rev. Ernestus Eduardus Lavy (B.Ch., stip. cond.), Trevor Abbott Lawder, Henricus Cecilius Douglas Miller, Johannes Dudgeon Oliver, Thomas Declan Power, Franciscus Augustus Roddy, Guilelmus Aloysius Ryan, Guilelmus Oliver Tobias, Guilelmus Rickard Lloyd Waters, Georgius Haroldus Wood.

Doctores in Medicina.—Hugo Reynolds McKay Ferguson, Eduardus Sandwith Johnson, Carolus O'Brien, Reginaldus Osborn Smyth, Ricardus Eduardus Tottenham, Henricus Ludovicus Warren Woodroffe.

Edinburgh University.

The following candidates have passed the final examination for degrees in medicine and Surgery (M.B., Ch.B.):—Robert H. Alexander, Christopher Atkinson, Mary A. H. Baird, Robert G. Bannerman, Rachel M. Barclay, M.A., Ralph C. L. Bachelor, M.A., Hugh W. Bell, James G. Bell, John W. Bennett, Stanley E. Bethell, James Biggan, Horace B. Binks, William Bird, Edward J. Blair, Alexander B. Brook, Hugh P. Caithness, Angus Cameron, Robert E. Cameron, Howard E. Collier, Alexander N. Craig, James W. Darling, Thomas M. Davie, William M. Dickson, Cedric L. Dold, Cuthbert E. Dukes, George K. Edwards, John D. Evans, B.Sc., Frederick B. Eykyn, Stanley Fenwick, Thomas C. Findlater, Elspet Fowler, Hermann R. Friedrichs, Thomas A. Fuller, Richard E. Gibson, Douglas J. Glen, Arthur S. Glynn, Harold P. T. Haddow, Andrew R. Hamilton, Ninian E. M. H. Hay, James J. Healy, George F. P. Heathcote, Gertrude Herzfeld, James Hogarth, Khurshed Husain, Florence E. Inglis, Bertel O. Jarrette, Charles P. M. Joubert, Petrus W. J. Keet, Charles G. Lambie, Samuel J. A. Leubscher, Louis Levy, Peter MacCullam, M.A., M.Sc., Thomas M'Fetridge, Robert M. Mackay, Eric F. W. Mackenzie, Eric L. Mackenzie, John J. R. Mackenzie, Ion K. F. MacLeod, Jean M. M'Minn, Francis G. Macnaughton, Edward Mansfield, Victor H. Mason, David J. Max, Benzion Mendelssohn, George Millar, Robert W. Millar, Eric M. Molesworth, George T. Mowat, Roydon M'I. Muir, William Murdock, John C. Neil, Hugh S. Palmer, Colin C. Philip, George S. Pirie, Reginald Power, B.E., John M. Pringle, Mirza Razakhan, Henry A. Rippiner, Robert L. Ritchie, Henry C. Robins, Charles Sand, Hugh K. Shaw, Bertram Shires, Henry J. Simson, Harry C. Sanderson, Thomas W. Smart, Alexander H. D. Smith, David M. Smith, Alfred S. Taylor, John S. Taylor, Andreas B. Theron, Andrew R. Thomson, B.A., Robert O. C. Thomson, Roland Thorp, Frederick E. Tillyard, Pierre du Toit, Janet P. Walton, Chik Hing Wan, Henry D. Welply, Horace P. W. White, George S. Williamson, David G. Wishart, Ernest W. N. Wooler, Peter C. V. Woudberg, Bertram E. Wright, George D. Yates, John B. Young.

NOTICES TO CORRESPONDENTS, &c.

☛ Correspondents requiring a reply in this column are particularly requested to make use of a *Distinctive Signature* or *Initial*, and to avoid the practice of signing themselves "Reader," "Subscriber," "Old Subscriber," etc. Much confusion will be spared by attention to this rule.

SUBSCRIPTIONS.

Subscriptions may commence at any date, but the two volumes each year begin on January 1st and July 1st respectively. Terms per annum, 21s.; post free at home or abroad. Foreign subscriptions must be paid in advance. For India, Messrs. Thacker, Spink and Co., of Calcutta, are our officially appointed agents. Indian subscriptions are Rs. 15.12. Messrs. Dawson and Sons are our special agents for Canada

Contributors are kindly requested to send their communications, if resident in England or the Colonies, to the Editor at the London office, 8, Henrietta Street, Strand; if resident in Ireland to the Dublin office, in order to save time in reforwarding from office to office. When sending subscriptions the same rule applies as to office; these should be addressed to the Publisher.

ADVERTISEMNETS

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Original Articles or Letters intended for publication should be written on one side of the paper only and must be authenticated with the name and address of the writer, not necessarily for publication, but as evidence of identity.

Reprints.—Reprints of articles appearing in this Journal can be had at a reduced rate, providing authors give notice to the publisher or printer before the type has been distributed. This should be done when returning proofs.

M.B.Edin. (Kent).—The red sulphide of mercury is preferable to the ammoniated salt in dealing with seborrhœic affections of the scalp. It may be combined with sublimed sulphur with advantage.

Dr. S. A. B. (London, S.E.).—The case appears to be pre-eminently a suitable one for treatment by psychotherapy. There is no possible danger in the methods employed.

N. R. (Brighton).—There are very few lepers in London at the present time, but our correspondent would doubtless be able to study the clinical characteristics of the disease in the wards of the Seamen's Hospital, Greenwich.

Vacancies.

West Hartlepool: Cameron Hospital.—House Surgeon. Salary £150 per annum, with board and rooms. Applications to J. G. Taylor, Secretary.

Camberwell Tuberculosis Dispensary, 19 Brunswick Square, S.E.—Assistant Medical Officer. Salary £250 per annum. Applications to the Secretary.

University of London, University College.—Lecturer and Demonstrator in Anatomy. Salary £350. Applications to Walter W. Seton, M.A., Secretary, University College, Gower Street, W.C.

Bradford Royal Infirmary.—House Surgeon. Salary £100 per annum, with board, residence, and washing. Applications to J. J. Barron, Secretary-Superintendent.

Birmingham General Dispensary.—Resident Medical Officer. Salary £240 per annum, with furnished apartments, fire, light, and attendance. Applications to Ernest W. Forrest, Secretary, 32 Union Street.

Hulme Dispensary, Dale Street, Stretford Road, Manchester.—House Surgeon. Salary £180 per annum, with apartments, attendance, coal, and gas. Applications to Honorary Medical Secretary. (See advt.)

County Borough of Preston.—School Medical Officer. Salary £350 per annum. Applications to Alfred Howarth, Town Clerk.

County Borough of Salford: Fever Hospital.—Junior Resident Medical Officer. Salary £150 per annum, with apartments, etc. Applications to L. C. Evans, Town Clerk.

Weston-super-Mare Hospital.—House Surgeon. Salary £120 per annum, with residence, board, and laundry in the hospital. Applications to the Honorary Secretary.

Bethlem Royal Hospital, Lambeth Road, S.E.—Second Assistant Medical Officer. Salary £275 per annum. Applications to John L. Worsfold, Bridewell Royal Hospital, New Bridge Street, E.C. (See advt.)

Appointments.

Deakin, H. V., M.R.C.S., L.R.C.P.Lond., House Physician at University College Hospital.

Dickson, W. E. Carnegie, M.D.Edin., F.R.C.P.Edin., Director of the New Pathological Department of the Royal Hospital for Disease of the Chest, City Road, E.C.

Gregor, Alexander, M.D.Aberd., a Medical Referee under the Workmen's Compensation Act, 1906, for County Court Circuit No. 59.

Hudson, R., M.D.Durh., Certifying Surgeon under the Factory and Workshop Acts for the Pontymister District of the County of Monmouth.

Jones, Howard, M.B., B.S.Lond., M.R.C.S., L.R.C.P., Honorary Anæsthetist to St. Mark's Hospital for Diseases of the Rectum.

Morley, John, Ch.M., F.R.C.S.Eng., Honorary Assistant Surgeon for Children at the St. Mary's Hospitals, Manchester.

Nihan, Charles, L.R.C.P. and S.Edin., L.F.P.S.Glasg., Medical Officer of Health of Brynmawr.

Rees, F. H., M.B., B.S.Lond., Obstetric Assistant at University College Hospital.

Steadman, F. St. J., D.P.H., L.R.C.P.Lond., M.R.C.S., L.D.S., Assistant Dental Surgeon to the Royal Dental Hospital.

Underwood, B., M.B., B.S.Lond., Clinical Assistant in the Dental Department at University College Hospital.

Watt, R. H., M.D.Edin., Certifying Surgeon under the Factory and Workshop Acts for the Langholm District of the County of Dumfries.

Births.

Finn.—On June 29th, at 137 Ebury Street, Eaton Square, S.W., the wife of Allan Finn, M.D., F.R.C.S.—a son.

Green.—On June 26th, at Romford, the wife of Charles David Green, M.D.Lond., F.R.C.S.Eng., of a daughter.

Holland.—On June 28th, at 13 Derwent Road, Palmer's Green, London, N., to Dr. and Mrs. R. W. Holland (*née* Bertha Mills)—a son.

Layton.—On July 5th, at 53, Acacia Road, N.W., the wife of T. B. Layton, M.S., of a daughter.

Marshall.—On July 4th, at Old Court, Ealing, the wife of C. F. Marshall, M.D., F.R.C.S., of a son.

Pineo.—On June 29th, at Richmond House, Langford, Somerset, the wife of Ernest D. Pineo, M.R.C.S., L.R.C.P., of a daughter.

Marriages.

Ashby—Sayer.—On July 1st, at the Roman Catholic Church, Rickmansworth, William J. Ashby, M.D., B.Ch., B.A.O., of Aylesbury, son of Mr. and Mrs. W. Ashby, of Cork, to Hilda Latimer, second daughter of Mrs. Latimer Sayer, of Lake View, Northwood.

Bromley—Lee.—On July 2nd, at Highfield Church, Earl's Heaton, Lancelot Bromley, M.C., F.R.C.S., youngest son of Sir John and Lady Bromley, of Seaford, Sussex, to Dora Ridgway, youngest daughter of Mr. and Mrs. Arthur Lee, High Close, Earl's Heaton, Yorks.

Cane—Guyot.—On July 4th, at St. Martin's-in-the-Fields, Trafalgar Square, Lionel Charles William Cane, M.R.C.S., L.R.C.P., of Reading, to Doris, eldest daughter of Mr. and Mrs. Guyot, of Belvedere, Kent.

Crump—Whitfield.—On July 2nd, at Trinity Wesleyan Church, Chorley, Lancashire, Captain Stanley T. Crump, I.M.S., to Hildegard Elizabeth, only daughter of Mr. and Mrs. Whitfield, of Northholme, Chorley.

Fawcus—Stewart—On June 29th, at Christ Church, Aughton, Robert Anthony Fawcus, M.B.Oxon., younger son of the late Ernest A. Fawcus, of Liscard, Cheshire, and Mrs. Howes, of Rye, Sussex, to Doris Annie, daughter of Mr. and Mrs. Charles Stewart, Cross Mount, Aughton.

Hughes—Reeves-Smith.—On June 2nd, at St. George's Hanover Square, Basil Hughes, F.R.C.S., son of the late Revd. T. E. Hughes, M.A., to Janet, only daughter of Mr. and Mrs. Reeves-Smith, of Berkeley Street, W.

Kennedy—Burn.—On July 4th, at St. Marylebone Parish Church, London, Walter Douglas Kennedy, M.B., Ch.B., Wantage, Berkshire, to Muriel Burn.

O'Connor—Hall.—On June 29th, at St. Etheldreda's, Ely Place, Joseph O'Connor, M.D., to Mary Russel, second daughter of the late G. W. Hall (formerly of Congleton, Cheshire), and Mrs. Hall, Reigate.

Odgers—Higgins.—On Tuesday, June 30th, at All Saints, Ennismore Gardens, Norman Blake Odgers, M.Ch., F.R.C.S., third son of the Rev. Dr. Odgers, of Oxford, to Mabel, youngest daughter of G. Randell Higgins, The Croft, Burcote-on-Thames, Oxon.

Pearson—Stanley.—On July 1st, at the Parish Church, Edgbaston, Dudley Garencieres Pearson, M.B., M.R.C.S., L.R.C.P., of Leicester, eldest son of Henry Garencieres Pearson, of "Spennithorne," Barrow-in-Furness, to Annie Gordon, eldest daughter of William Stamer Stanley, and granddaughter of the late Dr. William Stamer Stanley, of Orchardstown House, Dublin.

Sequeira—Littlejohns.—On June 29th, at St. Matthias, Richmond, Fleet-Surgeon W. S. H. Sequeira, R.N., to Olive, younger daughter of Engineer Rear-Admiral W. G. Littlejohns, C.B., of Stoke, Devonport.

Deaths.

Anderson.—On June 28th, at Llandrindod Wells, William Christopher Anderson, M.A.St.And., M.B. C.M.Edin., late of Wallasey.

Burgess.—On June 10th, at Darjeeling, John Hay Burgess, M.D., M.R.C.P., F.R.C.S., Captain, I.M.S., Surgeon to His Excellency the Governor of Bengal, aged 34 years.

Foquet.—On June 16th, at Ilfracombe, as the result of an accident, Henry Richard Foquet, M.R.C.S., L.S.A., aged 85.

Herschell.—On June 29th, George Herschel, of 36 Harley Street, M.D.Lond., aged 57.

Hogg.—On June 27th, at Shardlow, as the result of a gun accident, John Augustus Hogg, M.R.C.S., L.R.C.P., aged 45.

Laidlaw.—On July 2nd, at Grantchester Meadows, Cambridge, Robert Laidlaw, M.D., F.R.C.S.Edin., in his 73rd year.

Mugliston.—On June 30th, at Birsay Hatch End, George Thomas William Mugliston, M.D., aged 89 years.

Paddock.—On June 29th, at Harrogate, Thomas Danily Paddock, M.R.C.S., L.R.C.P., of Bootle.

Rose.—On July 1st, at 16 Warwick Avenue, Maida Hill West, W., Henry Cooper Rose, M.D., Surgeon-Major, and of the Middle Temple, Barrister-at-Law, at 83.

Vachell.—On July 2nd, at a nursing home at Clifton, Charles Tanfield Vachell, M.D.Lond., of Cardiff, aged 66 years.

HULME DISPENSARY.

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WANTED a HOUSE SURGEON duly registered and fully qualified. Salary £180 per annum. Annual increase £10 to £200, with apartments, coal and gas. Applications, with testimonials, at once, to Honorary Medical Secretary.

THE MEDICAL PRESS AND CIRCULAR.

"SALUS POPULI SUPREMA LEX"

VOL. CXLIX. WEDNESDAY, JULY 15, 1914. No. 3.

NOTES AND COMMENTS.

Officious Sick Visitors. THE advent of the inspecting school and insurance sick visitor has been one of happy omen. At the same time the ultimate and general success of this modern departure must to a great extent depend on the tactfulness of the officials who do the visiting. In cases that have come under our personal knowledge school visitors have taken the responsibility of pronouncing a ringworm cured, and have advised a child's return to school; or they have undertaken to decide whether in a given case ringworm is or is not present. As a matter of fact, it requires long medical training and the assistance of a microscope, and possibly of bacteriological investigation as well to enable one to pronounce with confidence upon the highly technical points in question. In the majority of cases it is absolutely impossible for the sick visitor to give any opinion on the point that is of the slightest value. This fact should be grasped by all local authorities that wish to deal adequately with the scourge of ringworm within their area. With care and experience a lay visitor may, of course, learn a good deal about ringworm, but it may be repeated with emphasis that it requires medical skill of a high order, backed by scientific methods of investigation, to ascertain not only the diagnosis, but also the cure of many cases of ringworm.

An Insurance Act Risk. UNDER the National Insurance Act it becomes possible for a rash or over-zealous sick visitor to do a great deal of mischief. The functions of such an official are to see that patients have medical attendance and that they are carrying out treatment properly. It is clear that in this way they discharge an important duty as regards the efficiency of medical administration and prevention of malingering and imposition. An instance of undue interference on the part of a sick visitor was reported last week by Dr. Harry Roberts. The patient was suffering from "housemaid's knee," for which complete rest was ordered. The visitor, according to the patient's statement, ordered her to return to work. The knee naturally got worse and a surgical operation became necessary. Incredible as it may seem, the visitor is said to have ordered the bandages to be removed in order that the wound might be inspected. A step of that kind might induce sepsis, with the possibility of permanent damage or even of fatal results. In view of the importance of the sick visitor to the adequate administration of the Insurance Act it would be well for the Insurance Commissioners to draw up a code of rules for their guidance. Sufficient time has now elapsed since the introduction of the Act for the adoption of common-sense principles in its practical working.

"Certified" Milk. THE importance of pure milk as a factor in public health is being more and more recognised by the legislature. The latest departure is the adoption of Mr. Astor's motion to authorise "certified milk" by the Standing Committee of the House of Commons for the better regulation of the supply of milk and the conduct of dairies. The mover aimed at the authorisation of the term "certified milk" for milk produced under prescribed conditions, and prohibiting the use of such description to milk not protected in that way. This proposal was accepted by Mr. Herbert Samuel, the President of the Local Government Board, on behalf of the Government. He pointed out that while provision might be made by legislation for the sale of dirty milk, difficulty was often experienced in enforcing penalties. Much might be done if the stimulus of a higher rate of profit could be given to those traders who offered milk produced and sold under a system of official regulation and inspection. Unless Parliament dealt with the matter a system of certification by private organisations would probably spring up. The adoption of this public guarantee, so to speak, of the purity of milk thus specified is clearly a departure of great practical importance.

Forcible Feeding. A PETITION on the subject of the forcible feeding of prisoners, with special reference to suffragettes, was presented last week to the Home Secretary by a number of registered medical practitioners. Some considerable divergence of opinion exists, even among medical men, as to the propriety of this procedure. Impartially considered, it may be said at once that forcible feeding is never resorted to unless it be in the interest of the health of the prisoner herself. Mr. McKenna has forwarded a reply to the petitioners emphasising this view of the treatment. The document proceeds in the following terms:—"The prisoners who are now being forcibly fed include the two women who burned a hotel at Felixstowe; the woman who burned the pavilion at Kew Gardens; the woman who burned Lady White's house at Englefield Green, and who attacked the Rokeby Venus in the National Gallery; two women who damaged pictures in the Royal Academy; one who attempted to destroy an antiquity in the British Museum; and two who were found in possession of explosives, one of them on the occasion of the King's visit to Nottingham. The Secretary of State assumes that the petitioners do not desire that these women should be allowed to starve themselves to death in prison, and that what they ask for is their release. This would mean that the women would be set at liberty, with the practical certainty that within a week or two they will burn more houses, destroy more works of art, and commit further outrages. In these circumstances the Secretary of State feels that it would be inconsistent with his duty to the public to grant the immediate release of the offenders; but if the petitioners, out of their medical experience and skill, can suggest any practical method other than forcible feeding by which the life and health of prisoners who persistently starve themselves and who ought not to be released may be preserved, Mr. McKenna will be only too happy to consider it." Here is a nice little clinical problem awaiting a satisfactory solution.

Sir Jonathan Hutchinson's Museum.

It is not many months ago since attention was called in these columns to the unique educational museum established at Haslemere through the wonderful energy and enterprise of the late Sir Jonathan Hutchinson. A powerful appeal has recently appeared in the *Times* from the pen of Sir Archibald Geikie for a sum of at least £8,000 to maintain the institution in the same state of efficiency as it was left by its revered founder. It is estimated that the museum is visited by some 10,000 persons annually, many of whom are pupils brought from schools at considerable distances. Unfortunately, the funds available are wholly insufficient to enable this wonderful institution to fulfil its function of instructing the public in biological, geological, and natural history through the aid of carefully selected specimens and illuminating diagrams. The residents of the district have risen nobly to the occasion, and have agreed, it is said, to maintain the museum until the end of the present year, but much more than this is needed. As a permanent memorial to the genius and skill of Sir Jonathan Hutchinson it would be an incalculable loss to the public, as well as to science, were the establishment to languish for want of timely support. There must be many medical men as well as laymen who would willingly contribute towards its preservation and permanent endowment out of personal admiration and gratitude to its founder. The Hon. Secretary and Treasurer of the fund, Miss Rose Jackson, Downcourt, Haslemere, will gladly receive subscriptions for this object.

"The Wrong Bottle."

Elsewhere in our columns will be found the report of an unfortunate occurrence at a London hospital. A girl had four teeth extracted, and upon recovering from the gas she appeared to be in a somewhat distressed condition. The operator, Mr. C. Peyton Baly, the well-known dental surgeon of Harley Street, according to the report, reached down a bottle which he supposed to contain smelling salts and applied it to the patient's nose. Unfortunately he had taken a bottle of corrosive acid, whereby considerable damage was inflicted upon the patient's face and neck. The explanation given was that the bottle of acid ought not to have been in the cupboard at all. A claim since made for damages on account of negligence was sustained by the learned judge. The assessment of damages has been postponed in order to see if the scar could be mitigated by the application of X-rays. The accident is one that might happen to any one of us under similar circumstances, and Mr. Baly will have universal sympathy in his misfortune. As to the moral of the incident—it is clear that all hospitals should keep their poisons in distinctive bottles. Had the acid been in a properly shaped receptacle the gruesome accident above recorded would not have taken place.

LEADING ARTICLES.

UNQUALIFIED MEDICAL PRACTICE.

The scientific care of the public health has of late years advanced by leaps and bounds. The Public Health Acts have placed sanitary administration upon a sound basis, and have reduced the death-rates materially, to say nothing of the improvement that must sooner or later follow in the thews and sinews, so to speak, of the nation. The medical inspection and treatment, combined with systematic feeding, of school children has been another step in the same direction. Not least of these measures is the National Insurance Act, which, in spite of various defects, cannot fail in the long run to exert a powerful influence in advancing the national health. In sharp contrast with these advances is the survival of the evils of unqualified medical practice. When King Henry VIII. instituted State medical qualifications in the sixteenth century, the change was explicitly inaugurated in order to enable the public to distinguish between properly educated and approved practitioners and those who had not gone through any systematic course of training and satisfied the ordeal of orthodox examination. That which was necessary four hundred years ago, when the best medical knowledge was crude and empirical, is a hundred times more desirable nowadays, when the practice of medicine has acquired, and is still acquiring, a mastery over the wide and enormously complicated field of practical medicine that constitutes it one of the most fascinating and progressive of all the sciences. It is not a little curious that the modern encroachments on the liberty of the individual subject in the interests of the community should have halted and failed before the foul abuses of unqualified medical practice. This deplorable failure has probably arisen mainly from two causes: First, the extent of the vested interests involved; and, secondly, the fact that the medical profession has not in the General Medical Council a body strong and capable of protecting the conditions of medical practice, as regards both the public and the profession concerned, in a manner analogous to that exercised by the Incorporated Law Society. The outcome, at any rate, is that, whereas the British public is rigorously protected from the unlicensed lawyer, it lies at the mercy of any medically unqualified charlatan, no matter how bottomless the void of his folly, greed, recklessness, and cruelty. A striking instance of the defectiveness of the law in dealing with unqualified practice is the way in which so-called Christian Science healers are permitted to continue their dangerous calling practically without restraint. From time to time deaths occur amongst those who have been misguided enough to trust to their ministrations, but the "healer" escapes with mild judicial censure. It is nothing short of a scandal to our modern civilisation that ignorant persons should be permitted to endanger life by claiming the power and usurping the position of a State-qualified practitioner of medicine. Only last week, in a coroner's court, an inquest was held upon a lady who died in the house, at Isleworth, of Mr. Orlando Miller, described as a "teacher, lecturer and healer." He was without medical qualification, but had received deceased into his house "to see if he could cure her of paralysis," for which services he was paid five guineas a week. Medical evidence was to the effect that had a medical man been called in earlier the life of deceased might have been saved.. "She was a poor subject for taking drugs," said a doctor who had formerly attended deceased, a remark that derived its significance from the fact that Dr. W. H. Wilcox, of the Home Office, detected scopolamine in the viscera of deceased. The coroner observed that the administration of scopolamine was not a wise or proper treatment for a person in the condition shown to have been that of the deceased during her last illness. The jury asked that the coroner should severely censure Mr. Miller for having administered a dangerous drug that might have accelerated death. The coroner pointed out to Mr. Miller that he was deserving of the greatest blame for treating the woman in a very improper way. Fortunately for him the medical evidence was in his favour, or he might have found himself in difficulties. There the matter ends. Mr. Miller, if we remember aright, has received somewhat similar admonitions from various other coroners. Surely there is something wrong with the law which permits the recurrence of this scandal of unqualified medical practice. Mr. Lloyd George would do well to insert a corner stone, without which his public health edifice will remain rotten and unstable, by legislating against the pernicious practices of the charlatan. Fortunately he is not afraid of fighting vested interests, which apparently have proved too strong for the recent Select Committee of Inquiry upon proprietary medicines and unqualified practice. On the appointment of that committee we had private information of an authoritative nature to the effect that no result of any value would ever come of the inquiry which would be allowed to drop quietly out of existence. One fatal defect of the committee, if our information is correct, was that the British Medical Association was permitted practically to guide its policy and nominate its witnesses. In view of its untoward experiences in the National Insurance Act, the Government might surely have grasped the elementary fact that the Association does not fully represent the thoughts, wishes, and aspirations of the medical profession. Any Cabinet Minister seeking guidance of the Council of that body is likely to be favoured with the personal views of a knot of wirepullers. The only sense in which the Association is representative is that it is the concrete sign and symbol of organisation. Some day it will doubtless emerge into the open light as an impartial and fearless defender of medical men in their various relations to society. What has the Association achieved during its many years of existence in the actual suppression of unqualified practice?

CURRENT TOPICS.

Insurance.

We have a modern way of reducing everything to a type. There is hardly a person or a thing that we do not classify and generalise about. We talk about "the school child" or "the working-man" as if each member who falls under either title must be in needs, physique, and mentality, the exact counterpart of all his fellows. It is our poor little way of tackling things that are too big for us. We cannot pay attention to each school child and solve its individual problems and difficulties, and so we turn our energies to the alleged troubles of "the school child," and forget that nobody is average. In a like way we are always trying to level up the incidence of fate. We try to mitigate our lot when fortune is unkind by tempering our pleasures when she smiles. We are moderate, and we insure. It is all very wise and unromantic. At least, most of it is, but there are some kinds of insurance that are almost interesting. Sporting policies will insure one against anything, from twins to bad weather. This kind of thing approximates very closely to any other form of making money without working for it. Usually the hardest part of the work consists in trying to understand the policy. Most sickness policies are so worded as to exclude all the diseases that any ordinary man is likely to suffer from. They pay cheerfully over plague, tetanus, or pyæmia, but jib irrevocably at influenza, bronchitis, or non-suppurative tonsillitis. The taking out of an insurance policy has a certain therapeutic value. It acts like an amulet. The insured person enjoys health above the average, and annuitants are notoriously long-lived. The insurance companies have done a great deal to reduce the frequency of appendicitis. They have raised their premiums from 10s. per £100 to £1, and say that the malady has abated substantially. It is this sort of case that makes therapeutics seem easy.

Coloured Thinking.

Ever since the time of John Locke it has been known that certain persons are able to associate sounds, words, or places, with colours. Such people are by no means abnormal mentally, they are rather to be classed among those refined thinkers that are akin to geniuses. In the current number of *Science Progress*, Professor David Fraser Harris, M.D., D.Sc., of Dalhousie University, Halifax, N.S., describes this peculiar mental faculty which has been termed psychochromæsthesia, coloured thinking, or chromatic conception. The linking together of colours with names of places, sounds, physical sensations, days of the week, etc., takes place in the mind of the thinker directly the mental concept is visualised, or as soon as it has entered the field of conscious thought. Thus, to some coloured thinkers Sunday may be yellow, Wednesday brown, Friday black, and so on. Others will compare the tone of a singer's voice to a certain colour. The expression "Moonlight Sonata" itself is a true colour-phonism, and this and similar associations frequently appear in the pages of modern novels. As Professor Harris points out, chromatic conception belongs to the physiology, not to the pathology of mind. Certain characteristic features of psychochromæsthesia are very definite. Thus the associations are generally fixed in the mind at a very early age, and when once the colour is thought of it is never disassociated from its own particular mental concept. Again, the coloured thinker is always most careful to define precisely the particular shade of colour he has thought of in connection with any object, though different coloured thinkers will not associate the same colour to the same mental concept. No reason can be given for this strange propensity of mind, which is sometimes hereditary, and may be related to symbolism.

Aerophagy.

The swallowing of air, followed by eructations, is associated with many disorders of the alimentary canal. At one time it was believed that aerophagy was more or less pathognomonic of a neurosis, but this troublesome symptom undoubtedly occurs in several organic gastro-intestinal diseases. In an interesting paper upon the subject read last month before the American Gastro-Enterological Association at Atlantic City, Dr. Charles D. Aaron, of Detroit, (*a*) points out that in all cases of persistent belching the possibility of aerophagy should be borne in mind. It is important to make a correct diagnosis, for the condition can be readily relieved. The habit is often unconsciously acquired by dyspeptics in their attempts to get rid of gas in the stomach that has collected as a result of some fermentative process. Attacks of true aerophagy occur after meals and they may continue for half an hour, the belchings becoming louder and louder. A point of diagnostic importance is the alternate rise and fall of the thyroid cartilage. During the attack the patient may become dyspnœic, with tachycardia and cyanosis. The introduction of the stomach-tube, however, instantly relieves these symptoms by allowing the imprisoned air to escape. The finding of bile in the stomach contents is another confirmatory sign of the existence of aerophagy, for the constant eructation produces a suction effect which draws the bile backwards from the duodenum into the stomach. Any co-existent gastric disease must receive appropriate treatment with drugs, dieting or lavage, while the patient should be encouraged to keep the mouth open during an attack. Electricity and psychotherapy are also useful in the treatment of any underlying nervous condition.

The Working of the Insurance Act.

As an example of the way in which our enlightened representatives look on a medical man's duty to his neighbour, we might do worse than look at some of the remarks made at a meeting of the North Dublin Union last week. Two of the medical officers in charge of dispensary districts have refused to grant certificates under the National Insurance Act. This, of course, is a matter that concerns the doctor alone, but a notice was moved bringing the refusals to the notice of the Board. A typical argument—if it can be so called—was introduced: That "a person getting medical relief is as much entitled to get a certificate as to get a copy of the registration when death occurred." Because a dispensary officer is paid to administer medical relief and to issue copies of certain registration certificates, he is therefore in the position of general guardian angel to the proud possessor of the red ticket, and must do everything else for the latter's convenience. Why not ask the doctor to feed and nurse the sick man, run errands for him, and help to wash the baby? It would all be nice for the patient, and if the doctor is not paid for looking after the sick, what is he paid for? At the meeting it was explained that neither the guardians nor the Local Government Board had anything to say to the Insurance Act, and this wonderful fact ultimately soaked through the pericrania of the *soi-disant* omnipotents. They decided that, like many other public bodies, they had been talking for quite a long time about something they knew nothing about and which did not concern them in the least. Their only justification was that they were trying to get more work out of their doctors with absolutely no extra expense on the funds committed to their charge. They also overlooked the fact that someone else is being paid out of public funds for non-performance of the duty they wished to impose on their medical officers.

The House in Relation to Tuberculosis.

One of the greatest problems in the national campaign against tuberculosis is the prevention of the disease in the home. After years of increasing activity and wider recognition on the part of health authorities, resulting in State benefit for the consumptive, public attention is gradually becoming more and more concentrated upon the chief mode of infection—the insanitary dwelling. It was most appropriate, therefore, that the subject should have been among those selected for discussion at the sixth annual conference of the National Association for the Prevention of Consumption and Other Forms of Tuberculosis, held at Leeds last week. As a member of the Royal Commission which is at present investigating the whole question of the housing of the people in Scotland, Sir William Younger, Bart., in his opening address, pointed out the remarkable saving in human lives that has been effected in Liverpool as the result of the demolition of one insanitary area and the erection thereupon of bright and airy dwellings surrounded by plenty of space. The educative aspect of the question, in so far as it comes within the scope of the tuberculosis dispensary, was dealt with by Sir Robert Philip, M.D., who declared emphatically that it should constitute an offence to offer insanitary dwellings for occupation no less than to expose tainted milk or meat for human consumption. While much can be done in enforcing the object lesson of the sanatorium in the home, true advance against tuberculosis will be accomplished only in so far as the necessity for an abundant supply of fresh air, especially for the developing child, is accepted as compulsory by all local authorities throughout the country.

Dermatitis in Rose-gatherers in the Riviera

The occurrence of an inflammatory form of dermatitis upon the hands of persons engaged in horticultural pursuits is well known. A number of flowers and plants are capable of giving rise to troublesome cutaneous eruptions when handled by susceptible individuals, and the list is gradually increasing as the result of careful clinical observation and research. Only a short while ago an investigation into a rash affecting the lily-pickers in the Scilly Isles was undertaken by Dr. David Walsh, who came to the conclusion that in a large number of instances the susceptibility of the gatherer to dermatitis depended upon some circulatory defect, usually of cardiac origin. In a recent number of the *Lyon Médical*, Dr. Revillet, of Cannes, calls attention to certain affections of the hands among the workers in the rose industry in the Riviera. The lesions are in the main produced by traumatism, the thorn-punctures becoming secondarily infected with septic micro-organisms. Hence, whitlow and boils are frequently observed, while a common type is that of a vesico-pustular dermatitis resembling at first sight a scabies, even in its distribution. Carbuncles and exfoliative dermatitis are also seen; while erythema, pruritus, and eczema contribute their share to a very polymorphic symptom-complex. It appears that some of the lesions in rose-pickers may

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(*a*) *Journ. Amer. Med. Assoc.*, June 27th, 1914.

be produced through the agency of one or other of the germicides—formol, carbolic acid, or sulphate of copper—used to destroy the parasites that threaten the life of the rose-trees. Others may be caused through the manipulation of manure. Careful attention to cleanliness and the prompt treatment of thorn-pricks with antiseptics are among the successful measures employed to protect the hands of the workers in this department of horticultural industry.

Public Health Administration in Dublin.

SIR CHARLES CAMERON has just published a booklet entitled "A Brief History of Municipal Public Health Administration in Dublin" (Dublin: Hodges, Figgis and Co.), which appears to be intended as a reply to the recent Report of the Departmental Committee on the Housing of the Working Classes in Dublin. Sir Charles gives a great deal of interesting information concerning the various activities of the Dublin Corporation, and shows that, whatever its failings, that body has accomplished much good work in the past half-century. It has brought a pure—if somewhat scanty—water supply to the city, it has established an efficient, if expensive, system of electric lighting; it has abolished the old system of storage of filth, and established water carriage of sewage; and it has substituted main drains discharging into the sea for the old sewers opening direct into the Liffey. All this is much, and should not be forgotten in estimating what the Dublin Corporation has accomplished in work which may be called sanitary, using the term in its widest signification. It is hardly, however, revelant to a charge of failure as regards provision of housing for the working classes and supervision of the existing tenements. A man is charged with stealing a sheep; it may be to his credit, but it is no defence to the charge, to prove that he did not steal the herd of cattle in the next field; nor is it much better to suggest that the sheep was not really full-grown, but only a lamb. Sir Charles attempts to minimise the charges with regard to neglect of proper control of tenement property. The facts remain, however, that the Corporation has neglected to enforce not only its own bye-laws, but the statutes, as, *e.g.*, in regard to a register of tenements being kept, and, further, that rebates of taxes have been given, in some cases to members of the Corporation, on houses classed by the health department as "unfit for human habitation."

A Substitute for Antiseptics.

THE evolution of scientific wound treatment forms one of the most interesting studies in the realm of therapeutics. In ancient times healing balms composed of various aromatic resinous substances were largely employed for wounds and sores of all descriptions. During the Middle Ages the influence of empiricism made itself strongly felt in this country, and, accordingly, the strangest applications, frequently of crude animal organic matter, were used for a like purpose. With the advent of Listerism came the strong antiseptics, carbolic acid and bichloride of mercury. These had the desired result of destroying germs, but they frequently damaged the tissues so much that much of the inflammatory reaction in wounds was due to the irritating effect of the chemical disinfectants employed in their healing. The modern aseptic treatment of operation and freshly-incised wounds requires the use of no strong antiseptics to damage the tissues. A little pure tincture of iodine is applied directly to the line of incision, and that is all. Wounds that are septic from the first are on a somewhat different level. They require antiseptic treatment in some degree in the majority of cases. The use of Wright's citrated isotonic solution as a substitute for antiseptic solutions is spoken highly of by Dr. G. K. Dickinson, M.D., of New Jersey, N.J. (*a*). The liquid is applied to the wound by gauze kept well soaked, and its cleansing and healing properties speedily become manifest. It has been successfully employed as an irrigant in cases of vaginitis, septic endometritis, and also in infected wounds following operations upon the gall bladder. The use of this physiological solution has obviated the necessity for strong antiseptics during the two years in which it was tried in Christ Hospital. It certainly has the merit of being cheap, non-toxic, and harmless to the tissues.

PERSONAL.

THEIR MAJESTIES THE KING AND QUEEN visited the Royal Infirmary, the Western Infirmary, and the Royal Hospital for Sick Children, Glasgow, and the Royal Infirmary, Perth, during their Scotch tour last week.

SIR WATSON CHEYNE, Bart., Honorary Surgeon to the King, and Surgeon to King's College Hospital, has been elected President of the Royal College of Surgeons of England.

DR. HERBERT STANLEY BIRKETT has been appointed Dean of the Faculty of Medicine in M'Gill University.

SIR WILMOT HERRINGHAM, M.D., F.R.C.P., has been re-appointed Vice-Chancellor of the University of London for the year 1914-15.

MR. V. ZACHARY COPE, M.D., M.S.Lond., has been appointed Surgeon in Charge of the Orthopædic Department at St. Mary's Hospital.

DR. THOMAS CHETWOOD, M.B.Lond., D.P.H.Oxon., has been appointed School Medical Officer and Deputy Medical Officer of Health for Sheffield.

MR. L. E. BARRINGTON-WARD, Ch.M., F.R.C.S.Eng. and Edin., has been appointed Surgeon to Out-patients at the Great Northern Central Hospital.

SIR ALMROTH WRIGHT, F.R.S., M.D., D.Sc., will preside at the annual dinner of the old students of St. Mary's Hospital to be held in October next.

DR. F. W. CRAIG, M.B., Ch.B.Edin., D.P.H., has been appointed Medical Superintendent Officer of Health and Tuberculosis Officer for Londonderry.

MR. A. H. BOSTOCK, M.R.C.S., L.R.C.P., has been elected Honorary Surgeon of the Royal West Sussex Hospital, Chichester, in place of Mr. F. Skaife, resigned.

MR. DUNCAN MATHESON MACKAY, M.D., C.M.Edin., M.R.C.S., L.R.C.P.Lond., has been appointed Honorary Ophthalmic Surgeon to the Hull Royal Infirmary.

The Honorary Degree of LL.D. has been conferred by the University of Edinburgh upon Dr. Byrom Bramwell. Consulting Physician to the Edinburgh Royal Infirmary, and upon Dr. F. W. Mott, Pathologist to the London County Asylums.

DR. R. WALLACE HENRY, the Originator, Founder, and First President of the Union of Medical Practitioners and the Leicestershire and Rutland Public Medical Service, was the recipient last week of a handsome testimonial as a token of love and esteem from his professional colleagues.

(*a*) *Medical Record*, June 20th, 1914.

CLINICAL LECTURE

ON

SOME FURTHER THERAPEUTIC POINTS.—III.

By HERBERT FRENCH, M.A., M.D.Oxon., F.R.C.P.Lond.,

Physician to Guy's Hospital.

Mr. President and Gentlemen,—I thank you for the honour you have done me in inviting me to make these remarks to you this evening, and I only hope that you will not find what I have to say too trivial or too familiar to be of use. I propose to touch on a number of separate practical points, none of which are original; you must pardon me if you know of them all already, but I have found that even when things are known about they are not always made use of as often as they might be, and that must be my excuse for bringing them before you to-day. The reason for using the word "further" in the title of this address is that I have already discussed a number of similar points elsewhere, and although I should have liked to have mentioned some of those again to-night, I shall refrain from doing so, because they have been published in The Medical Press and Circular for May and December, 1912.

The first point that I should like to bring to your notice is

The Value of Horse Serum and Ox Blood in the Treatment of Resistant Simple Anæmia.

Of course, the great majority of cases of anæmia are remedied easily by the ordinary simple treatment of rest in bed, the administration of one or other of the many preparations of iron with or without arsenic, steps being taken at the same time to ensure a regular action of the bowels. Six weeks in bed under this treatment will generally cure almost any case of chlorosis, however severe the latter may be to start with, especially if the room in which the patient is being nursed is a sunny one; but now and again one meets with a patient whose anæmia proves so refractory to treatment that none of the ordinary things seem to do any good at all. Rare though these cases may be, all of us meet with them from time to time, and the question arises as to what further kinds of treatment can be adopted. Both horse serum and ox blood may then be used, and sometimes with extraordinary benefit. The patient is generally an unmarried woman of the better-to-do classes, and she may have been to see all kinds of doctors, and may have visited various spas noted for the treatment of anæmia. In one such case recently, for example, the lady was 33 years of age, and for over ten years she had been so anæmic that she had been unable to take any active part in life or in the doings of her brothers and sisters, and she had become quite hopeless of ever being cured. Her hæmoglobin measured only 35 per cent. of normal, there was no organic disease of any of the viscera, and yet all attempts to cure her anæmia had failed hitherto. Within two months of treatment by horse serum and ox blood her hæmoglobin had risen to 95 per cent. of normal, her red corpuscles were over 5,000,000 per cubic millimetre, and she felt perfectly well. She may, of course, relapse, as so many of these patients do, but that does not altogether detract from the value of the treatment. It is carried out as follows: The patient is put to bed in a sunny airy room, with wide-open windows, and upon a full diet, including particularly the natural gravies from roasted meats. For each of eight successive days she is given a subcutaneous injection of 10 c.c. normal horse serum—preferably into the deep subcutaneous tissues of the abdominal wall; the serum is obtainable sterile and ready for injection in glass phials like those in which ordinary antitoxic serum is supplied. It is sometimes possible to give a ninth or even a tenth injection, but the phenomena of anaphylaxis and severe serum reaction generally prevent more than eight doses being given, and one is in any case obliged to stop by the tenth day, because beyond this point the giving of more serum is actually dangerous on account of anaphylaxis. The patient should be warned previous to the beginning of the treatment that she will have considerable reaction, with pyrexia up to perhaps 102° F. or even higher, starting, as a rule, about the eighth or ninth day, and persisting more or less, but not getting continuously worse, up to the seventeenth or eighteenth day if eight injections are given, or to the nineteenth or twentieth day if nine or ten injections are given; until this is past the patient should remain entirely in bed. During this pyrexial period she will feel more or less ill in herself, and will very probably suffer from urticaria, which is sometimes mainly local to the site of injection, but more often occurs all over the body. It has been recommended that calcium lactate should be given in 10 grain doses three times a day with the idea of minimising these serum phenomena, but in practice this drug is disappointing in this connection; 10 grain doses of aspirin given once, twice, or three times a day often alleviate the itching of the skin and the headache; locally one may dab on a lotion consisting of one part of rectified spirit in three parts of water, to each pint of which are added 2 tablespoonfuls of glycerine and a teaspoonful of bicarbonate of soda or some weak caustic soda. When the reaction is over, that is to say about the twentieth day from the beginning of the treatment, one can begin giving fresh defibrinated ox blood per rectum. If one could continue indefinitely with the horse serum one would do so, but on account of the anaphylaxis a considerable interval must elapse before further doses of it can be given with any safety. The defibrinated ox blood, on the other hand, can be given without any danger, and continued indefinitely. It is obtainable by arrangement with any butcher who kills his own animals; he whips the blood to defibrinate it, and pours it into bottles that have been sterilised by boiling, and places these on ice; the blood should be kept on ice until it is used. If fresh blood can be obtained each day this is best of all, but as a rule the butcher does not kill every day, and it may be necessary to arrange for a three days' supply at a time. A suitable dose is 5 ounces, and it is given like an ordinary nutrient enema with a rubber tube and glass funnel. The bowels having been well opened in the morning, the nurse inserts the small rubber rectal tube about six inches into the rectum, and the blood is allowed to run in through a suitable funnel held from two to three feet above the patient. To insure the blood being retained it should not be allowed to run in too quickly. The number of days this treatment should be continued depends upon the progress of the case, but, roughly speaking, it may be continued for four weeks and then stopped. The patient should remain recumbent for two hours at least after the injection, but by this time her progress will generally have been such that she is able to get up in the afternoon, and during the summertime she may lie on a couch in the garden, as much in the sunshine as possible, or even go for a drive. She should not, however, do any walking yet. In a very severe case the total length of treatment occupies from six to eight weeks, by which time the patient is generally able to begin walking again, and very soon afterwards she can return to ordinary life. It is as well to continue the administration of iron with or without arsenic in some form or another during the whole period, and a very efficient and convenient form of giving these two drugs is as the alginate of iron and as solid arsenious oxide—10 grains of the former and 1-60th grain of the latter in a cachet, one such cachet being given three times a day to begin with, and presently two such cachets three times a day if they are borne well. Pain in the back is sometimes severe when iron is given, but this symptom is less troublesome with the alginate than with almost any other form. Towards the end of the treatment the patient often complains of a stuffy, full feeling in the head. When this is very troublesome the amount of alginate of iron may be reduced, and presently the drug omitted altogether. The fulness in the head is in some way due, one supposes, to the unwonted activity of the blood-forming red marrow in the cranial bones.

Precisely similar treatment may be employed to accelerate recovery after severe hæmorrhage in association with fibroids of the uterus, duodenal or gastric ulcer, or hæmoptysis. If in these circumstances it is felt that the patient is too ill to bear the serum reaction, only one or two doses of horse serum may be given and then the ox blood per rectum; the ox blood generally causes no untoward effects at all, and in this respect is quite different to the horse serum given subcutaneously. It is hardly necessary to add that when the monthly period occurs during the course of the treatment the injection of ox blood per rectum will be omitted temporarily.

The next point I should like to refer to is

The Value of Brandy Packs to the Chest in Cases of Severe Cough Preventing Sleep.

These are particularly valuable in the case of children who, when suffering from bronchitis, or from whooping cough or sometimes from intrathoracic irritation from enlarged thoracic glands, perhaps tuberculous, are sometimes kept awake to the point of absolute exhaustion by incessant coughing, generally without expectoration to relieve it. If these persistent coughing attacks are controlled by medicines, well and good. Sometimes, however, they go on and on in spite of all the ordinary drugs, and one wishes one could do anything to relieve the child who is getting thoroughly exhausted. The brandy pack will often prove invaluable under such circumstances. It is a very old remedy, and probably all of you are familiar with it and use it; but, in case not, I should like to call attention to it. One needs a large single piece of flannel, long enough to go one and a half times round the chest and wide enough to extend from the neck above to the umbilicus below. About four inches from the top of this one cuts two round holes, one for each arm; and one needs a large piece of gutta-percha tissue or jaconet of sufficient size to cover over the whole of the flannel when it is in position, also with two armholes cut in suitable positions. One mixes half a pint of brandy with a pint and a half of cold water in a washhand basin, and steeps the large flannel in this until it is thoroughly wet all through; one just squeezes it enough to leave it quite wet but not actually dripping. The child's chest is stripped, the flannel is held out straight, the arms put through the holes cut for them, and the free ends of the flannel crossed smoothly over the back; the jaconet is then applied over the flannel in the same way, the whole being kept on by quickly winding a broad bandage loosely all round the chest and over the shoulders. Some prefer to use the brandy and water hot, but most relief is obtained by using it tepid or cold, and doing so is no danger to the child, for very quickly the heat of the body, especially as the result of the increased amount of blood which the brandy pack brings to the surface of the chest, makes the application steaming hot, and in half an hour or less the child very often falls into a peaceful slumber, which may last for several hours without any coughing at all. Precisely similar treatment may be employed in some cases in adults, but the most striking benefit is obtained in children, especially between the years of five and ten. Again and again one has seen refreshing sleep ensue when up to the time of using the brandy pack all other measures have failed.

The next point I should like to bring before your notice is

The Value of Biborate of Soda in the Treatment of Resistant Cases of Epilepsy (Grand Mal).

This is an old remedy for the purpose, but it is not employed so frequently as it might be. My knowledge of it in this connection is due to Dr. Sear, of Enfield, and since he told me about it I have found it check the fits in bad cases in which bromide of potassium by itself failed to do so more than a little. In ordinary cases of epilepsy, of course, small or medium doses of bromide of potassium do all that is required, and one needs no other drug in the treatment of these cases. Sometimes, however, one meets with patients whose fits are very imperfectly controlled by bromides. If they have no medicines at all they may be having fifteen or twenty attacks of epilepsy a week. When one gives increasing doses of bromide of potassium, with or without arsenic, and other familiar remedies until they are taking 2, 3, or even more drachms of the bromide a day the fits may be reduced to three or four a week, and yet do what one will the attacks may persist to this modified extent. If one now prescribes 10 grains of biborate of soda in cachet form, or as the plain powder washed down with some water or some milk, one will sometimes find that for every ten fits the patient had previously on bromide treatment alone he may now have only one or even less. In some cases, indeed, the fits may be stopped altogether, or they may occur only at long intervals, very much longer than was the case when the bromide treatment alone was given. Moreover, it is frequently possible to reduce the amount of bromide at the same time. For instance, whereas it might have been necessary to give 40 grains three times a day previously, one may get fewer fits, although one reduces the bromide of potassium to a single dose of 20 grains given in a tumblerful of water in the morning if one also gives 10 grains of biborate of soda three times during the day. The advantage of this to the patient is very great, because the biborate of soda is not depressing and very big doses of bromide of potassium almost always are. One objection to the drug is its nasty taste, but the patients are only too keen to take any remedy that will help them to lose their fits, and most of them take the crude drug just as it is without any difficulty at all. It is less nasty perhaps when given as the plain powder than it is when an attempt is made to prepare it in mixture form. Two recent hospital out-patients have improved so much under the biborate treatment that, whereas upon bromides they could get no employment at all, they are now back at permanent work.

The next point that I wish to draw attention to is

The Value of Venesection in Certain Chronic Conditions, Especially Arterio-Sclerosis and Polycythæmia.

After a period in the early part of last century when venesection was performed indiscriminately for almost any malady and was therefore much abused, this therapeutic measure fell into disrepute, so that it was seldom resorted to at all. There has now, however, been a reaction in favour of it under certain circumstances, and most physicians do not hesitate to bleed patients suffering from certain acute maladies, especially uræmia, lobar pneumonia in a plethoric subject, and acute heart failure from valvular disease or myocardial degeneration. It is, however, by no means only in acute conditions of this kind that venesection can do good, and the relief afforded to many persons suffering from arterio-sclerosis with greatly raised blood pressure by periodic venesection, say at intervals of a month or six weeks to two months, is sometimes remarkable. One of the objections to venesection in the past has been that it then meant incising the skin, and thus producing a wound which might become septic, and in any case meant a dressing. Now, however, by means of short hollow needles, which are made for me by Messrs. Down Bros., it is quite a simple thing to venesect a person to 15 or 20 ounces or even more in one's consulting-room, the patient being able to go straight away to his ordinary duties after the little operation without any dressing upon the arm at all. The broad rubber bag that one uses in connection with a sphygmomanometer is of great assistance in this connection; applying it to the upper arm one pumps air into it until one just obliterates the radial pulse. Having found the maximum systolic pressure in this way, one now lets a little of the air out of the bag until the pulse has returned, and in this way one has a very simple tourniquet in which one can regulate the pressure to a nicety, and one does not hurt the upper arm in the way that the narrower rubber tourniquet often used to. Moreover, the broad band of pressure round the upper arm seems to impede the transmission of painful impulses from the nerves of the forearm to the brain, so that the patient feels less than one might expect when one inserts even a big needle into the distended veins in front of the elbow. It is necessary to have a wide, short needle, for otherwise, if one uses a longer, narrower needle, such as one through which one gives a dose of antitoxic serum, after the first two or three ounces of blood have run out the flow gets gradually slower, and finally ceases from clotting in the narrow tube. It is an additional advantage to have a rubber attachment, for by means of it one can direct the blood into the measuring glass or other receiver more conveniently than one can straight from the metal needle itself. It takes from five to ten minutes to let out 20 ounces of blood from a vein in this way in an ordinary case of arterio-sclerosis. On releasing the air from the pressure bag the bleeding stops at once; after removing the needle a few drops may escape, but if the arm is now held vertical for a minute or two it is found that no further bleeding occurs, and the puncture hole needs no dressing whatever, though it may be wise to powder over it a little boric acid. The patient goes to his ordinary work directly afterwards without feeling any ill effects; indeed, many ask to have the venesection repeated periodically because they feel so much better for some time after it. How the venesection acts it is not easy to say. It certainly does not do so by reducing the blood pressure, for the latter is affected by it very little if at all; one imagines, however, that when a bulk of blood is thus removed from the vessels it is made good by absorption of other fluid in the tissue spaces; the latter in their turn require a fresh supply from wherever they ordinarily get it, and so there is an all-round renovation as it were for the time being. At any rate, there can be no doubt as to the beneficial results in actual practice if cases are properly selected. One sees the same benefits come about spontaneously from a severe epistaxis sometimes. Venesection with a hollow needle, with a sphygmomanometer bag for tourniquet, is so easy that I should like to see it used more widely, not in acute conditions only, but also in selected chronic cases of arterio-sclerosis, polycythæmia, plethora, and high blood pressure.

(*To be concluded in our next.*)

Note.—*A Clinical Lecture by a well-known teacher appears in each number of this Journal. The lecture for next week will be by Herbert French, M.A., M.D.Oxon., F.R.C.P., Physician to Guy's Hospital. Subject: "Some Further Therapeutic Points."*

ORIGINAL PAPERS.

ON THE VALUE OF THE BACTERIOLOGICAL EXAMINATION OF THE URINE. (a)

By T. S. KIRK, M.B.,
Surgeon to the Royal Victoria Hospital, Belfast.

I wish to call your attention to the value of the bacteriological examination of the urine. I do not pretend to speak as a bacteriologist, but merely as a clinician, and I will take the liberty of speaking of it from a medical as well as from a surgical point of view. The bacteriological work in connection with my cases has nearly all been done by Prof. Symmers and his staff.

Five years ago, when this work was commenced, the only cases so examined were cases of chronic infections, especially those with multiple lesions. To-day I examine bacteriologically the urines of all my cases as a matter of routine. The reason I made this change was on account of the valuable results obtained in some of the early cases and on account of a disaster which might have been avoided by such an examination.

I will mention two of my early cases as examples.

(1) Male, æt. 41 years. When two years old he had a lumbar abscess, diagnosed as due to spinal caries. This abscess was opened, and it eventually dried up. When 25 years old he developed an abscess between his rectum and bladder; this was opened and drained and an external urethrotomy was done at the same time to drain his bladder. Later he had many small perineal abscesses. He had palmar psoriasis all his life. He had many patches of chronic eczema on his limbs and body; several times every year he had crops of boils on his face and neck. His hair came out, and he had much eczema of his scalp. He was unhealthy-looking and very thin. When I saw him he had chronic cystitis and a stricture of his urethra at the site of

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(a) Paper read before the Ulster Medical Society.

his old urethrotomy wound and a perineal fistula, as well as his skin affections.

From his urine many colonies of streptococci grew and a very few colonies of *B. coli*. He had altogether four injections of a streptococcic vaccine in the course of fourteen months, and his stricture was dilated. All his troubles were cured and he has had no relapse and no treatment since the spring of 1910.

(2) Male, æt. 25 years. I saw him on account of an arthritis of his left hip joint. Twelve years previously he had an attack of acute pneumonia. I found he had a small abscess in the lower lobe of his right lung. This abscess was opened, and from it a pure culture of pneumococci was obtained. The same micro-organism was in his urine. When I saw him first he had a hectic temperature and was very much emaciated. He got an autogenous pneumococcic vaccine, and in a short time all his general and local signs and symptoms disappeared, and he is now in excellent health and able to get about with an ankylosed hip joint.

These two cases, I think, showed accurately in the urine the nature of the infections from which the patients were suffering, and the results seem to show that the vaccines made from the urines were of undoubted benefit.

The next class of cases in which I found this method of examination of value was in cases of skin-grafting of large ulcers. For many years I have been much interested in the skin-grafting of burns, and have tried many ways of preparing the ulcers for the grafts and many ways of treating the grafts after the operation, and I have always had much uncertainty as to whether the grafts would take or not.

Now I have found that some patients with large ulcers have micro-organisms in their urine and others have sterile urine. The patients with sterile urine can be grafted, and if a careful *technique* in cleaning the ulcer and getting rid of all granulation tissue, etc., is carried out, the grafts will take in every case; but if the urine contains infective micro-organisms, a good result can only be hoped for if vaccine treatment is carried out before and after the operation, and even then some suppuration nearly always occurs.

This relation between the character of the urine and the result of skin-grafting has been quite constant during the last eighteen months. A similar relation exists in cases of varicose ulcers and the operation for varicose veins, and explains, I believe, why operations for varicose veins in patients with varicose ulcers frequently suppurate. The same relation is present in patients suffering from boils or acne. Some of these patients have staphylococci in their urine and others are sterile, and this explains why plastic operations in such patients sometimes suppurate.

The last case which made me decide to examine all urines bacteriologically was the case of a child with a fractured femur, in whom the urine was not planted out before operation.

This child had an oblique simple fracture with two inches of shortening. He was an anæmic, sickly-looking child, with a history of digestive disturbance some months before the accident. It had no definite focus of inflammation anywhere. I operated on the femur and closed the wound with continuous layered sutures without any drainage. Four days after the operation the child was very ill and feverish. The wound in the thigh looked all right, but I opened it and got some serum with flakes of lymph in it, and from this serum there grew many colonies of the *B. coli*, and the same bacillus also grew from his urine. Happily he made a good recovery. I feel certain that in this case the child's previous ill-health was due to an infection of *B. coli* which had become chronic, and would probably have been detected by a urinary examination.

Since this occurrence I have planted out all urines as a matter of routine, and the value of the procedure from a general medical point of view has been demonstrated.

In the beginning of last December I saw a patient who was supposed to have malignant disease of his spleen. The spleen was hard and enlarged to a couple of fingers' breadth from the umbilicus. He had a small amount of fluid in his peritoneum. Two years before I saw him he had commenced to feel weak and lose flesh. At that time he noticed small boils on his legs and a few on his back and neck. Three weeks before I saw him he had a mild attack of left-sided pleurisy. A blood count showed a moderate degree of secondary anæmia. His urine was planted on blood agar and a copious growth of *Staphylococcus citreus* appeared inside twelve hours. Dr. Wilson made a vaccine from this growth, and the last I heard of the patient about six weeks ago was that he was at his work again and feeling quite well and that his spleen had gone down in size. This patient had no other treatment, except the vaccine, and his improvement was so rapid and marked that it is hard to think that the vaccine was not the cause of his improvement.

Last year I had a number of cases of empyema under my care. There were two due to a pneumococcus, one due to the *B. coli*, three due to a staphylococcus; in two of the latter there were staphylococci in the urine, all the others had sterile urine. Those with sterile urine got better much quicker than the others. In fact, one of those with staphylococci in the urine has not improved at all in spite of vaccine and other treatment.

The bacteriological examination of the urine may, therefore, be of use, not only as regards diagnosis, but also as regards prognosis. In January of last year a young man was in my ward who had a simple fracture of his ulna and a dislocation of the head of his radius. I could not reduce the latter under an anæsthetic, although I tried to do so twice. The question of reduction by operation had then to be considered. This patient had a scaly condition of his skin, and his urine contained many staphylococci, and these were not affected by a six-months' vaccine treatment. Consequently, I refused to operate on him, as I felt sure his wound would suppurate. While I was ill last year, a colleague, whose aseptic *technique* is above suspicion, operated on him, and was disgusted to find that the wound suppurated. Thus the result anticipated from the condition of his urine actually occurred.

I think I have quoted enough cases to prove that examination of the urine is of undoubted value in many cases, although it is still only on trial. I do not say that it is an infallible guide to the nature of an infection. Unfortunately, I have come across cases of infection with many suppurating foci, in which nothing has grown from pus, blood, or urine—*i.e.*, we have failed to grow anything, probably on account of our ignorance of proper methods.

It may reasonably be asked why I have spent so much time in making urine cultures and have not planted out the blood in every case. Well, I feel certain that every patient should at some time or other be examined bacteriologically. Now, to make this generally possible, some simple method, which any medical man could practise, must be devised, and cultures from the urine are at present the easiest and quickest to make, and, therefore, we must try to get a reliable method of examining the urine.

Such bacteriological examinations of the urine are of especial importance in cases of injuries and operations, and I hope we may soon have some simple and sure way of detecting the presence and nature of infective micro-organisms in our patients, and thus providing the complement to Listerism. In Listerism, as practised to-day, every precaution is taken to prevent the entrance of micro-organisms into wounds, but no cognisance is taken of those in the patient's system, and it is for this reason that we find so many differences in the ritual of aseptic surgery, and why they all every now and again break down. It is a well known fact that blood infections cause suppuration in hæmatomata and other injuries unaccompanied by any external wounds, and there is no reason why a similar infection should not play havoc with operation wounds.

THE TREATMENT OF LARYNGEAL TUBERCLE.

By W. PERMEWAN, M.D.Lond., F.R.C.S. Eng.,

Laryngologist and Otologist to the Royal Southern Hospital and the Southport Infirmary, Lecturer on Laryngology, University of Liverpool.

I question if the profession is aware generally of the extreme frequency of tubercular disease in the larynx. Except in the rarest instances, it is now settled that it is always secondary to pulmonary tubercle, and a large series of *post-mortem* examinations show that in fatal cases of pulmonary phthisis 50 per cent. are complicated by deposit in the larynx. As to its frequency in living patients, it may be said that in the first stage of phthisis about 10 per cent. have laryngeal complications, while in the third stage that figure rises to 72 per cent. Why is this frequency not more generally recognised?

First, because the larynx is seldom examined. Secondly, because disease there may exist for a considerable time with no noticeable symptoms. Thirdly, because the pulmonary disease is much more insistent, and gives rise to more marked effects. But, as it is so frequent, the question becomes of importance: Can anything be done, apart from sanatorium treatment, to cure or relieve it? (*a*) In 1880 Morell Mackenzie said: "The prognosis of laryngeal phthisis is always extremely unfavourable, and it is not certain that any cases ever recover." To-day there is no longer any doubt that cases do recover. I myself have seen them do so, and remain well for many years, in one case for eighteen years. Records show the same thing, and Heryng has published *post-mortem* records which establish clearly the cure of cases as the result of operative treatment. Given an early diagnosis, I should say that the prospects of cure depend on three factors: (1) local treatment; (2) the degree of pulmonary disease, and its general effects on the organism; and (3) the possibility of sanatorium and other hygienic measures. The prognosis must depend, of course, on the degree of local involvement, but it is not always the slight cases which do best; marked thickening from tubercular deposit and extensive ulceration will clear up sometimes in a most striking manner. The real factor of prognosis is, and must remain, the course of the pulmonary lesion and its adequate treatment.

Conversely, the prognosis of pulmonary phthisis depends to some extent on the coexistence or not of laryngeal complications. It is well known that sanatorium superintendents are very shy of taking in laryngeal cases. The irritable cough of laryngeal tubercle interferes with rest; all laryngeal cases are easily depressed; and the local disease has dangers of its own. All this ought not, however, to exclude laryngeal tubercle from sanatorium treatment, though perhaps it would be better to take them into those sanatoria only where in the first place there is a trained laryngologist to deal with them, and where in the bulk of cases laryngeal symptoms are the most prominent. Also, by a trained laryngologist I do not mean a man who is only just able to examine a larynx, but one who is thoroughly conversant with intra-laryngeal surgery. This digression will perhaps be pardoned, if only because it accentuates the almost constant association of tubercle of the larynx with pulmonary tubercle.

Speaking generally, therefore, I would say that if the case is one which is favourable from the point of view of the lung, it is also favourable from the point of view of the secondary laryngeal disease, if only that disease receives appropriate local as well as general treatment.

What, then, is the local treatment?

Special opinion has gone through many phases in my time on this as on every other subject. When I began practice, the routine treatment in tubercular ulceration was painting with lactic acid. This caustic was supposed, rightly or wrongly, to have a selective effect on the tubercular deposit, and to spare the healthy parts of the larynx. Accordingly, after anæsthetising the larynx by cocaine, we used to rub in the pure lactic acid, and we were especially told to rub it in with force. This was not a pleasant process for the patient, but in some cases it undoubtedly had marked effect in promoting healing of tubercular ulcers. The after pain, however, was considerable; and therefore some weak-minded practitioners thought that as much good might be done by the repeated spraying of the larynx with a dilute solution of the drug. My experience, and I think that of all others, showed that it was useless—and worse than useless, even irritating. Just as painting a granular pharynx with nitrate of silver in 30 grains to the ounce solutions only irritates, while the galvano-cautery cures, so was it with solution of lactic acid in laryngeal tubercle. The pure acid, however, was, and is, extremely valuable. I can recall one case of ulceration of the vocal cord which healed up under lactic acid and remained healed for twenty years.

For cases which were not ulcerated, but where there was marked pseudo-œdema, menthol and other like aromatic sedatives dissolved in paraffin were slowly trickled into the larynx from a laryngeal syringe. I cannot say that I have ever seen any good effect except the relief of cough and irritation. But lactic acid and menthol were then our main remedies.

The next stage was the advent of severe surgical measures. Krause, and Heryng of Warsaw, introduced into practice the laryngeal curette. Sets of instruments came into our hands, biting instruments, scraping instruments, and cutting instruments like cutting bone forceps. The interior of the larynx was vigorously attacked with these. Ulcers were scraped, just as an ulcer of the leg is scraped, œdematous tissues were ablated, diseased arytenoid cartilages were cut out bodily, and the larynx was treated generally as if it were a tuberculous knee-joint. There is no doubt that wonderful results were obtained, in tolerant patients. But I doubt whether our English patients were tolerant enough for this process. It had to be repeated; it

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(*a*) *Liverpool Medico-Chirurgical Journal*, January, 1914.

produced sometimes—though not always—marked local and general reaction, and not uncommonly severe hæmorrhage; and, of course, in spite of local anæsthesia, much pain. Still, it was a rational treatment, and in good hands and in good cases cured the disease. Like every other surgical treatment, if only feebly applied, it, on the contrary, did much harm and hastened death.

Of course, the one trouble always was, that when you had got your ulcers cleaned up, they were always liable to re-infection from the pulmonary discharges; and the huge open wounds resulting from the treatment were particularly liable, unless they healed up quickly, to this re-infection. But sometimes they did heal up quickly, and their cure, at any rate for the time, resulted. Speaking generally, the method was not largely used in England, but it was very extensively used in Russia and Northern Germany, where apparently there is no limit either to the enthusiasm of operators or the tolerance of patients.

Then came the development of sanatorium treatment of consumption; and laryngeal tubercle shared this movement with pulmonary tubercle. The great principle in the treatment then became the proper regulation of food and exercise, combined with fresh air, and, above all, absolute rest of the voice. It is, of course, impossible to secure complete rest of the laryngeal muscles; but speaking was forbidden, and by prolonged general repose violent respiratory movements were prevented. Cough also received special sedative treatment to secure immobility of the larynx.

There can be no doubt that this method often secures brilliant results. There is at least one well-known laryngologist who has himself been completely cured of laryngeal tubercle by this means: and it offers to-day in slight cases the best chance of success.

But in the last few years there has been introduced a means of treatment which gives most valuable results. That is the use of galvano-puncture. The rationale of it is not so much the actual burning away of diseased tissues, as the fact that the hot platinum point has a local destructive effect on the bacilli, and that by promoting fibrosis it tends to limit the spread of the disease. That at any rate is the theory. In practice it is performed by puncturing diseased areas by a fine heated point which is thrust down till it is arrested by healthy tissue. The point must be almost at a white-heat: several punctures are made at the same sitting, and an interval of three weeks or less secured between the applications. Two things are surprising: one, the small amount of inflammatory reaction or subsequent pain; the other, the rapid shrivelling-up of infiltrations under its use. Whether it is applied under the guidance of the laryngeal mirror, or through a direct laryngoscopic tube, matters nothing. Each operator will use the method he is most at home with. Of the result, however, in many cases there can be no doubt.

There is one special part of the larynx which, when alone affected, can be easily removed. That is the epiglottis. It is not a very common seat of the earliest deposit of tubercle; but it is not seldom affected. When it or a part of it is affected there can be no question that it, or the diseased part of it, should be amputated with a powerful cutting forceps. Considerable portions of it can be removed with no effect on swallowing except a good effect, and the operation furnishes a rapid and easy way of getting rid, at one stroke, of a large amount of diseased tissue.

It would seem that when once the desirability of free surgical attack on the tuberculous larynx is admitted, the question of thyrotomy and radical treatment after naked-eye inspection would be the next step. Unfortunately, the results of thyrotomy are, or have been, on the whole bad. A few cases have been recorded in which the disease has been cured: but factors against success are (1) the co-existing lung disease, which renders the patient peculiarly unfit for external operations, (2) the fact that infection is apt to attack the wound. Cases suitable for laryngotomy may be (1) those with localised tuberculomata, (2) those where there has been perichondritis and necrosis of cartilage requiring removal of the dead cartilage and drainage. On the whole, it seems that as much good, with less risk, can be done by suitable intra-laryngeal surgical treatment as by thyrotomy.

Tuberculin has of course been tried. It might be thought that the larynx offered a good field for testing tuberculin, as the effects could be observed accurately; and that is true. Unfortunately, the results are not by any means always beneficial. Dr. Camac Wilkinson was able to describe, three years ago, several cases which had been completely cured, and he concluded that all other methods of treatment were obsolete. That has not been the experience of many other observers. It may be that Dr. Wilkinson—who of course discards the opsonic index, and uses methods of his own—may have some special knack or acumen which enables him to get results others cannot get. I should be inclined to say that on the whole the effects of tuberculin are disappointing, and certainly not so uniformly good as to render other treatment unnecessary.

To sum up, in conclusion: What are the proper lines of treatment of tubercle of the larynx?

(1) The treatment of the lung disease by sanatorium methods.

(2) The prescription of absolute rest of the voice, and as much rest of the respiratory movements of the larynx as is consistent with proper treatment of the lung.

(3) The provision in sanatoria of properly trained laryngeal surgeons.

(4) Possibly the establishment of sanatoria devoted exclusively to the treatment of tuberculous cases complicated by laryngeal disease.

(5) If there is thickening by deposit, or by the pseudo-œdematous condition of the various folds of membrane in the larynx, the repeated application of galvano-puncture.

(6) In cases of slight ulceration the vigorous application of lactic acid, possibly combined with formalin.

(7) In cases of extensive disease removal by intra-laryngeal methods of the diseased structures, but only in cases not suffering too severely from the general effects of the pulmonary trouble. In particular, the removal of diseased parts of the epiglottis can be undertaken with ease and safety.

(8) A trial of tuberculin by skilled and experienced hands.

All these methods will often fail; but it is none the less true that in early cases, and in particular in cases which have a fair amount of resistance to tubercular affection, a resistance either natural or acquired, the results of treatment will be found strikingly favourable, and not seldom permanent.

MR. THOMAS JOHNS HITCHINS, M.R.C.S., L.R.C.P., D.P.H., late of 42 St. Aubyns, Hove, formerly of Broadfield, Crawley, Sussex, and Surgeon to St. John's Hospital for Diseases of the Skin, London, left estate of the gross value of £6,511.

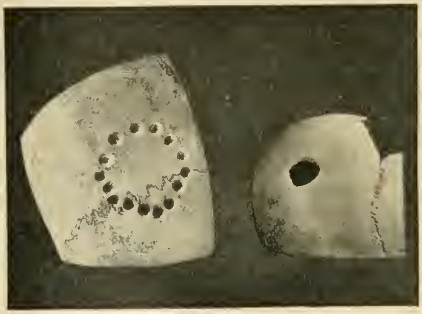
PREHISTORIC MAN AND HIS EARLY EFFORTS TO COMBAT DISEASE. (*a*)

By T. WILSON PARRY, M.A., M.D.Cantab.

PART II.

It must have been but a short step for the first man who, firmly believing in demoniacal possession, and at the same time suffering either from frequent fits, severe pain in the head of a periodic or paroxysmal nature, chronic hemicrania, or unbearable Ménière's disease, made an effort to free himself from his fetters. Life had become an intolerable burden to him, and he believed that there was a devil inside his cranium that was petitioning somewhat persistently for liberty. Was there not the Medicine-man who always attended to members of his tribe when accidents befell them, who stopped their bleeding and dressed their wounds? He would go to him and ask him to make a hole in his skull to let out this wicked and restless spirit. The first operation must have been troublesome and tedious, not to mention its extreme danger. The scalp had to be cut through with a sharp piece of flint or obsidian, the bleeding stopped, and the scraping of the bone commenced. This would take the first operator many hours to perform, but the patient was helpful and anxious to get rid of his devil and possessed that unflinching stoicism to pain that is characteristic of the savage and the operation would be at length completed. If the patient recovered, whether he obtained relief from his symptoms or not, he was henceforth reverenced as a sacred person. We can thus see why, in some districts, trephining was so prevalent, for prestige seems to have been purchased by undergoing this operation. After death the skull was eagerly sought after. The trephined portion was removed by flint saws, and pieces of bone, edged by part of the healed cicatrix, were removed. A hole was bored through the centre of this trophy, and it was henceforth regarded as a talisman that if worn would insure the wearer from getting the disease from which the operatee had suffered. So great a demand appears to have been made for these amulets, at one time, that we actually find spurious imitations were made, some fashioned from horn, and others made from untrephined pieces of bones, so that a portion of the healed cicatrix became an essential to prove its authenticity. The year 1868 was a memorable one, for it was in this year that M. Prunières discovered in a dolmen near Aiguières the first trephined neolithic skull to which the attention of scientists was drawn. A large piece of bone had been removed, and the smoothness of the edges made the discoverer think that this had been purposely polished for the lips, in the converting of the skull into a drinking-cup, a practice well recognised among savage tribes. The finding of five other skull fragments, in the same dolmen, all partially polished in the same way, made the finder think that these also were parts of converted drinking-cups. The interpretation of this mystery was left to Professor Broca, who showed indubitably that the holes in the skulls had been made during life, had been done by scraping, and that, after the death of the individual, portions of such skulls had been evidently eagerly sought after. He came to the conclusion that the operation was usually performed on children and from what he says: (13) "it could be effected on the skull of a child in less than five minutes, whilst on an adult it would take an hour,"—it will show he had probably made some careful experiments. Broca believed that the operation was performed for the cure of epilepsy and convulsions, and he argues from the superstitious practices found in connection with it that at that period, as well as long subsequently, these diseases were regarded as peculiarly the work of spirits.

He quotes from a treatise upon epilepsy (14) by Jehan Taxil published in 1603 not only to show that infantile convulsions were confounded with true epilepsy, but that, at that time, epilepsy and kindred diseases were looked upon as spiritual diseases, the works of gods or demons, while the remedies recommended in the treatise were highly suggestive, consisting sometimes of the ashes of a human skull applied as a plaster on the crown of the head, sometimes the same administered in potions or pilules, and sometimes as nodules to be worn round the neck; while sometimes also *scraping the skull* was recommended. Broca goes on to show that (15) "all through the middle ages, and even after the Renaissance, the substance of the human skull was used in the treatment of epilepsy, the skulls of Egyptian mummies being regarded as the most efficacious; whilst in the last century all the pharmacies contained a bottle labelled 'Ossa Wormiana' for the treatment of epilepsy, the peculiar efficacy of the triangular lambdoidian bone consisting in its form, which resembles that of the amulet cut from the human skull, thus showing the step between prophylactic and mystic medicine." Broca thought that trephining was in vogue throughout the entire Neolithic Period on account of the fact that trephined skulls had been found in the cavern of the "Homme Mort" (Lozère) which dates from the commencement of the Neolithic Period.



Figs. 6 and 7.

Fig. 6. Skull of male (68 years) trephined (1st shape only) by flint-pointed bow-drill (Fig. 2). Time taken 25 minutes. Fig 7, Skull of infant (9 months) trephined by oyster shell (Ostrœa Edulis). Time taken 50 minutes.

It might have been thought, considering the number of trephined skulls that have been excavated in France, that the custom would have spread to the British Isles, as only the Channel separated the two countries, and we have evidence that there was no inconsiderable traffic between them in Neolithic times. I have only been able to hear of three such skulls that have been unearthed in this country, and I should be most happy if anyone knowing of any other specimens would kindly inform me. The three specimens of which I know are: (*a*) A skull that was

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(*a*) The Presidential Address read before the North London Medical and Chirurgical Society in the Board Room of the Great Northern Central Hospital on May 14th, 1914.

dredged from the bottom of the docks at Port Talbot, South Wales, in or about 1870-2. I have a photograph of this skull to show you this evening, kindly lent me by Mr. Thomas Gray of the above-mentioned place. This skull shows a frontal excavation over the right supra-orbital region. Not having seen the specimen I am unable to give any opinion. (*b*) An interesting specimen showing a ring-trephine as if an effort had been made to remove a rondel of bone. This specimen was excavated in the autumn of 1863 from a long barrow, near Bisley, by the late Dr. W. H. Paine, assisted by Dr. Henry Bird. I have to thank Mr. A. E. W. Paine, son of the first-mentioned excavator, for kindly furnishing me with a photograph, which I can show you this evening. Professor Keith has seen this specimen and states "there is no mark of inflammation or disease on the bone." This probably belongs to the Bronze Age. (*c*) The third specimen is one which I have seen in the Northampton Museum, owing to the kindness of Sir Victor Horsley, who conducted me thither. I can emphatically state that the three trephine holes in the form of a triangle, on the vertex of this skull, were not made during the Stone Age nor by any Stone Age implements. It is dangerous to make statements if it is not known from which stratum a specimen has been obtained or what implements or animal remains may have been discovered in association with it. All that is known of this specimen is that it was found "outside the British camp called Hunsbery," in Northampton. On a modern skull I have made as exact a model as I can of the three holes, as regards size and relative position, and it is my opinion that they were made on the original, not from any demonological reason, but as a means for suspending the skull as a trophy by a Bronze Age or later headsman. This model is here for your inspection and criticism. I have to thank Mr. Thomas J. George, curator of the Northampton Museum, for his kindness in sending me tracings of (16) General Pitt-Rivers's plates of this skull, which I have also here for your inspection this evening. It will be seen from the above that it is probable that two out of these three trephined specimens are not neolithic. If the third belongs to this period, it is the only one that I know of in this country.

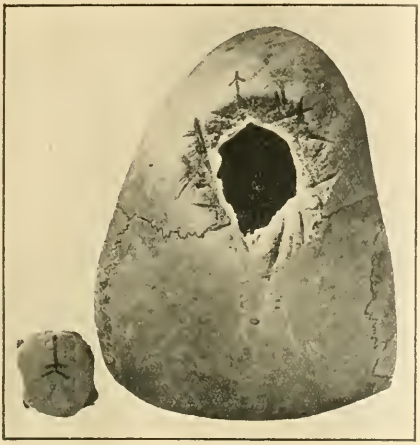
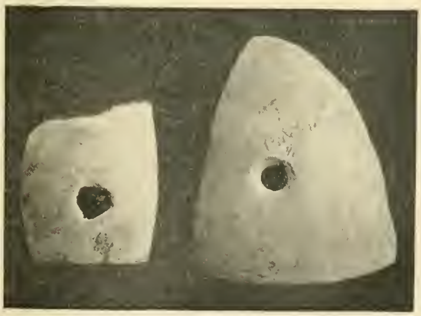


Fig. 8.

Skull of female (40 years) trephined first by bow-drill (as in Fig. 6), then completed by cutting and sawing bridges between holes by short strong flint knife (Fig. 1. No. 5). Rondel of bone removed and seen to left of skull. Time taken 65 minutes.

In the Museum of the Royal College of Surgeons of England are six skulls of modern Melanesians that have been either partially or wholly trephined by natives of these islands. Owing to the courtesy of Professor Keith, I am able to describe them in this paper. In three of these specimens a complete perforation has been made in the cranial bones, and in the remaining three either part of the outer table alone, or the outer table and diploe have been removed by scraping. One, a male, from New Britain (presented to the Museum by Dr. C. G. Seligman), has a large hole measuring 28 mm. by 34 mm. in the right occipito-parietal region. The outer edge of this hole is thin, bevelled and smooth and shows a healed surface, demonstrating a successful operation. Of the five other skulls, all of which come from New Ireland and were presented by Dr. W. E. Redman, of Picton, New Zealand, one shows two frontal scrapings. On the left side the outer table has been completely rubbed through, and on the right is a circular scraping through the outer table leaving a boss of bone in the centre, which looks as if an attempt had been made to remove a small rondel of bone. Why these two operations should have been made on the same skull and both in the frontal region is difficult to imagine, unless the symptoms, for which the first operation was performed, having still persisted, a second operation was demanded. In the third skull there is a beautifully rounded hole measuring 14 mm. by 15 mm. in the left frontal region. The edges of this hole are smooth and rounded and show an excellent healed surface. The reason for the operation having been performed in this case is obvious, as there is a diseased patch of bone with considerable erosion in the mid and right frontal region. The devil had need of being released in this instance as the disease is undoubtedly of syphilitic origin. In the fourth skull there is a large patch of osteitis measuring 45 mm. by 60 mm. over the right frontal region. The outer table is completely eroded and posterior to this the skull has been sawn through and shows the disease has caused a wide separation of the two tables of the



Figs 9 and 10.

Fig. 9, Skull of infant (10 weeks) trephined by obsidian flake. Time taken 8 minutes. Fig. 10, Skull of male (44 years) trephined by obsidian flake. Time taken 28 minutes.

skull. It is not surprising, therefore, to find that the surgeon advised, or the patient solicited, the trephining of a patch 17 mm. by 28 mm. in front of this diseased surface, as probably a direct counter-irritation to relieve severe and continuous headache. The skull has not been perforated, but the outer table has been scratched through and the surface is smooth and shows every sign of healing. In the fifth skull there is a large elliptical scraping, measuring 48 mm. by 35 mm. in the right parietal region. There is a deep furrow in the centre of this scraping which shows one the method by which it was done. It is all but perforated. In the sixth and last specimen there is a large perforation, 23 mm. by 40 mm., over the left frontal region and part of this hole is filled up with fresh callus that has formed during the process of healing, which has evidently given a very successful result. All these cases, I have not the slightest doubt, were done by scraping the bone with obsidian flakes. The usual custom in Melanesia after the operation has been performed is to replace the scalp, which was incised in the first instance by an obsidian knife, and simply bind it in position by a bandage made of banana-fibre.

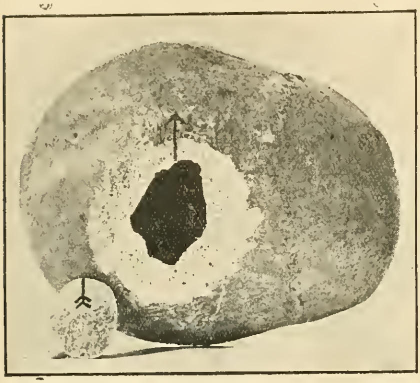


Fig. 11.

Dry specimen (female) trephined by hafted obsidian knife (Admiralty Islands) (Fig. 5). Rondel removed and can be seen below specimen. Time taken 78 minutes.

Being anxious to ascertain how Neolithic man trephined living subjects with the crude materials at his disposal, I made a series of some 19 experiments both upon recent and dry skulls. When showing the results of some of these experiments to Professor Keith, he informed me of a (17) pamphlet by Dr. Lucas-Championnière, in which I would find that several of my experiments had already been done by him. I was quite unaware of this brochure when making my tests. Referring to this pamphlet, it appeared to me that Dr. Lucas-Championnière had only experimented with flint. I experimented, in addition, with obsidian, sharks' teeth, shell and slate. I used flint in two ways, first in the form of neolithic scrapers, and secondly, as a hafted sharp point to a bow-drill. The bow-drill, I may mention, is one of the oldest forms of mechanical contrivances. Without any hard material affixed to its end it has been used from time immemorial by the Sioux and Canadian Indians to make fire by the friction caused when used against another piece of wood, some easily inflammable material, such as touchwood or dried leaves being in the near vicinity for catching the spark. With a sharp point of some hard material it was used for drilling holes. In a clever prehistoric romance, entitled (18) "The Master Girl," the bow-drill is shown most reasonably to have been invented previously to, and to have given the first idea of the ordinary bow, from which arrows are shot. Obsidian I also used in two ways. First, as obsidian flake scrapers, and secondly, as hafted implements in the form of an Admiralty Island knife. I used two kinds of sharks' teeth, both being hafted in wooden handles. A small variety, which I only employed in the case of an infant's skull, I obtained from a socketed club made by natives of King's Mill Islands; this specimen has been identified by Mr. C. Tate Regan, of the Natural History Museum, as belonging to "Carcharias glaucus or a related species," while the larger specimen, which I used for two adult skulls, as Galeocerdo arcticus. The shells I employed were beach-worn specimens of a species of the oyster (ostrœa edulis), picked up on the north coast of Brittany. For slate I used an ordinary piece of slate, shaped like a scraper.

For scraping a hole in bone, metal not being considered, there can be no better natural implement than a well-flaked piece of flint. Where flint cannot be obtained, as in volcanic regions, such as the South Pacific Islands, obsidian makes a good substitute. Obsidian is a natural volcanic glass, and can be flaked, in the same way as flint, by a sharp well-directed blow. The obsidian I used came from the Lipari Islands, north of Sicily. Contrasting these two substances I would give flint the first place. A hard, sharp edge can be obtained in flint which is more resistant to counter-pressure than is obsidian. Obsidian, like glass, can give an even sharper edge than flint, but it is much more brittle, and if care be not taken minute particles may swiftly scintillate into the eyes of the operator. I may remind you that while flint is a silicious sedimentary deposit, obsidian is of igneous formation. Both flint and obsidian when freshly flaked are excellent substances for surgical purposes. Both by virtue of their smooth surfaces, and here obsidian would take the pre-eminence, are aseptic, and this is a point of infinite importance when coming in contact with the dura mater. It

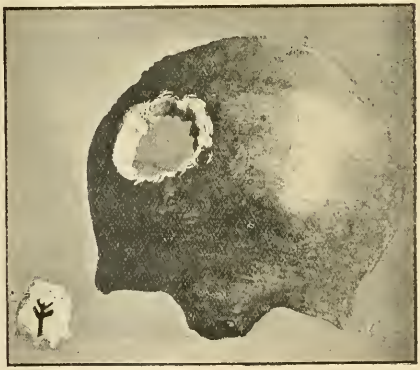


Fig. 12.

Dry specimen trephined (rondel removed, to the left of specimen) by hafted shark's tooth (Fig. 3). Time taken 1$\frac{3}{4}$ hours.

surprised me at first, in no small measure, to find how cleanly and easily a flint knife can cut through the scalp, and obsidian, of course, is even better, for in the Andaman Islands, in the present day, the natives shave their heads with obsidian knives. The method I employed for scraping the trephine-hole in both flint and obsidian was the following:—Having selected a site on the skull and also a suitable flake, I scraped as nearly as possible along a single line. This line I gradually converted into a groove, which soon showed two more or less prominent edges. The outer table of the skull is by no means as easy to remove in this manner as might be expected. The next step was to attack the edges of the groove with a curved movement of the scraper till a depression was produced in the bone which gradually assumed an elliptical shape. It is only now a question of time and manipulation to convert this elliptical depression into a circular one, and thence, having penetrated the inner table of the skull, to expose the dura mater and enlarge the foramen in the bone to the size and shape required. In only one case can I remember slightly bruising the dura mater, and the reason of this was that my supply of neolithic implements was limited and I had not to hand, at the moment, the particular shape I required. It must be remembered that when Neolithic man did this operation he would be bountifully supplied with probably hundreds of sharp, newly-cut flakes, and immediately one became blunted or was not to his favour in any other way, he would naturally fling it aside and choose another. As regards the bow-drill, I got my carpenter to affix a neolithic flint-point into a wooden shaft. I then bored a succession of holes, some fifteen in number, in a circular manner on the place chosen. These I enlarged till they touched one another. At this point there is great risk of shattering the flint-point or of unhafting it altogether, as it strikes with force the broken edge of an adjoining hole. Having completed the circle with as deep holes as is expedient, I next broke down the edges between them with a sharp and strong flint-flake, and then, by means of sawing and scraping, eventually removed a complete rondel of bone. This is an extremely tedious and clumsy operation and not in any way calculated to bear comparison with the simpler method of scraping. As regards sharks' teeth as surgical instruments, I am satisfied that there is no more excellent natural implement for boring holes in bone than a hafted shark's tooth. Its keenly serrated edges and its strong, sharp point make it an instrument invaluable to the primitive surgeon. It, moreover, possesses a natural flange which converts it into a trephine of undeniable utility, for the flange is so placed as to prevent the point penetrating too deeply into the thickness of the bone to the wounding of the dura mater. A ring of holes (as in the case of the bow-drill) packed as closely together as possible, followed by the breaking down of the bridges between them by a scraping and saw-like action of the implement makes a hole, after removal of the rondel as clean and neat as the most fastidious chirurgeon could wish. Trephining by shell was probably never attempted by Neolithic man in Europe, though primitive man most certainly used shell-knives for ordinary use and shell-lancets for opening abscesses in the South Pacific Islands. It took me about 25 minutes to trephine the skull of a nine-months-old infant. This, in time, bears most unfavourably with the same operation on a fourteen-months-old child by a flint scraper, which only took 9½ minutes, or that of a sixteen-months-old child, which took a quarter of an hour. During the scraping process the shell, of course, wears badly, and there is much more detritus than in the case of flint or obsidian. One specimen I experimented upon with slate. Slate has been found in many neolithic tombs, and it was doubtless used for domestic purposes, as the patting of butter or the making of cheese. I am quite convinced it was never employed as a trephine, for it is too soft and friable; but I made this experiment in order to test the value of slate as a boring implement as regards bone. It took me nearly 50 minutes to make the small hole I was able in the skull of a man 44 years of age. Subjoined is a list of my experiments. The originals are exhibited in the Historical Medical Museum, and I have to thank the curator, Mr. C. J. S. Thompson, for the loan of the trephined aboriginal skulls I am able to show you this evening.

(A) FLINT

(1) FLINT SCRAPERS

No.	Sex	Age.		Time Taken.	
1	Female	11 months		9½	minutes
2	„	16 months		15	„
3	„	5 years	Frontal hole	18	„
4	„		Parietal hole	15	„
5	„	21 years		30	„
6	Dry Specimen			28½	„

(2) BOW-DRILL (Flint-point)

No.	Sex	Age.		Time Taken.	
7	Male	68 years (1st stage only)		25	„
8	Female	40 years (Rondel removed)		65	„

(B) OBSIDIAN

No.	Sex	Age.		Time Taken.	
9	Male	10 weeks	Near fontanelle	1½	„
10			Parietal region	8	„
11	Female	44 years		28	„
12	Dry Specimen			31	„
13	Male	44 years (Admiralty Isd. knife)		30	„
14	Dry Specimen [	„	(Rondel removed)]	78	„

(C) SHARK'S TEETH

No.	Sex	Age.		Time Taken.	
15	Female	14 months (Carcharias glaucus)		12	„
16	Dry Specimen	(Galeocerdo arcticus)	Partial	1¼	hours
17		„ „	Complete	1¾	„

(D) SHELL (Ostrœa Edulis)

No.	Sex	Age.		Time Taken.	
18	Female	9 months		Circa 25	minutes

(E) SLATE

No.	Sex	Age.		Time Taken.	
19	Male	44 years		„ 50	

We have been looking back to-night into the far-away past and have been endeavouring to piece together the history of prehistoric man from specimens of his handiwork that have been heirloomed to us by the sheltering hand of Nature, who has protected them for us, either by covering them over with the débris of rock or hiding them under stalagmite or in the deep breccia in the floors of caverns. To this has been added a passing glimpse at the methods of present-day primitive tribes. Tylor says (19) "The uniformity which so largely pervades civilisation may be ascribed, in large measure, to the uniform action of uniform causes." Thus it is that the combination of these two parallel studies enables us to get a true insight into the life of prehistoric days. For a moment let us look forward, far into the future, to the day when cancer will no longer be a terror, when tuberculosis will be a rare or unknown disease, and when lymphadenoma and lymphatic anæmia will be understood and preventable. In these halcyon days the advanced medical-scientist, when looking back on the opening years of the twentieth century, will state that radium had only just been discovered, electricity was only used in a limited manner, and that scientists of that day were only then wresting hypnotism from the hands of the shrewd and clever charlatan. They will possibly look back upon these days as we now look back upon the Age of Stone. May they be as gently critical upon us and our methods as we feel towards prehistoric man and his early efforts to combat disease.

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(16) "Excavations in Cranbourne Chase." By Lieut.-Gen. Pitt.-Rivers. Vol. III. Plate 227.

(17) "Trépanation Néolithique, Trépanation Pré-Colombienne, Trépanation des Kabyles, Trépanation Traditionelle." Par le Dr. Lucas-Championnière. 1912.

(18) "The Master Girl." By Ashton Hilliers. p. 87.

(19) "Primitive Culture." By Dr. E. B. Tylor.

TRANSACTIONS OF SOCIETIES.

ROYAL SOCIETY OF MEDICINE.

Section of Obstetrics and Gynæcology.

Meeting held Thursday, July 2nd, 1914.

Dr. W. S. A. Griffith in the Chair.

SPECIMENS.

Dr. H. R. **Andrews** showed a uterus which he had removed after performing Cæsarean section. Labour was obstructed by a carcinomatous growth which had surrounded the external os, but had caused no symptoms. The patient was æt. 39, and was admitted to the London Hospital on March 1st, 1914, having been in labour about 24 hours. On admission the pains were strong and frequent. The cervix was rigid and only two-fifths dilated. More careful examination of the cervix found it to be extremely hard and firm feeling, as if a portion of a thick rubber ring pessary had been let into the tissues of the cervix on its anterior two-thirds; the posterior one-third was normal. There was no ulceration, but in front and to the left a raised everted edge could be made out. On examination with a speculum it was impossible to diagnose that it was carcinomatous by its appearance, but a sound sank into the tissue about half an inch with only gentle pressure. Cæsarean section was performed and the uterus then removed. The anterior wall of the cervix above the growth was so thin that it tore in separating it from the bladder. On examination after the operation a hard, white growth was found to occupy all the lower part of the cervix except a little more than an inch posteriorly. Sections showed squamous-celled carcinoma. It was very curious that in this case carcinoma which was sufficiently advanced to cause obstructed labour had produced no symptoms of its presence.

Remarks were made by Dr. **Herbert Spencer** and Dr. **Amand Routh**.

Mr. **John D. Malcolm** showed a specimen of fibromyoma complicating and masking carcinomatous disease of the cervix uteri. The patient was a healthy-looking woman of 53, who had for years suffered with a fibroma, but of late had very free red discharge and discomfort. On examination there was an obvious fibroid about four inches in diameter at the fundus, but there was also another growth in the region of the upper part of the cervix. There was no ulceration of the tissues, but a diagnosis was made that some active degeneration, either malignant or necrotic, was in progress. On opening the abdomen, the fundus contained a large fibromyoma. Slight traction on this caused a laceration of the tissues of the cervix below the tumour, which was now found to be the seat of extensive cancerous disease. The removal of the malignant mass was found to be very difficult owing to its extensive connections to the bladder and ureters. The operation lasted three hours. Unfortunately, though the patient did well for a time, the growth recurred, and the patient died within the year. Sections of the growth proved it to be a carcinoma, partly squamous and partly cylindrical-celled in type. It apparently arose from the interior of the cervical canal.

Dr. **Macnaughton Jones** showed a specimen of adeno-carcinoma limited to the summit of the uterine cavity. The uterus had been removed from a patient, æt. 54, a widow. She had had four children. For some years she had a vaginal discharge which was coloured but never offensive. The uterus was curetted, and the material removed was reported to be adeno-carcinoma. Ten days later the uterus was removed, and at the summit of the fundus a soft growth was found projecting into the uterine cavity and involving the myometrium. The growth was an inch and three-quarters in length. It exhibited the ordinary features of an adeno-carcinoma.

The **President** (Dr. W. S. A. Griffith) showed a case of utero-rectal adenomyoma with extensive decidual metaplasia complicating pregnancy. The patient was æt. 37, married 15 years, one child, born December, 1899. Pregnant again at about the sixth month. Last regular period ceased September 22nd, 1913. Expected day of confinement June 27th, 1914. She was admitted to St. Bartholomew's Hospital on account of a curious mass in the recto-vaginal septum complicating the pregnancy. The pregnant uterus extended 9½ inches above the symphysis, and on its anterior surface was a flat sessile fibroid. There was some hydramnios. The mass in the recto-vaginal septum was ill-defined and soft and spongy in character, not bleeding on digital examination, but on exposing it with a Sims' speculum and touching it with dressing forceps free arterial hæmorrhage followed. The mucosa of the rectum was not invaded. A fragment of the growth was removed through the posterior fornix for examination. Abderhalden's test for pregnancy and carcinoma was faintly positive. The optical test was not done owing to insufficient material. During the following month the case was carefully watched, and it was found that the cervico-rectal growth had increased considerably, compressing the rectum and extending on the right side as far as the sacro-iliac synchondrosis. It was decided to try the effects of radium, and this was done, 100 mg. of radium bromide being inserted into the middle of the growth, and two other tubes containing 37 mg. of radium carbonate and 50 mg. of radium bromide, for 20 hours. In June the patient was in good health and the pregnancy apparently normal, with less hydramnios. Locally the cervico-rectal mass had diminished considerably. Nothing further was done, as it appeared that there was a good prospect of spontaneous delivery. Sections of the growth stained by Van Giesson's method show large masses of typical decidual cells in a stroma of muscle and connective tissue. Within each mass is a cleft, lined by a thin lamina composed of flattened epithelial cells. In one part is a dilated gland tubule lined by low cubical epithelium and completely surrounded by large decidual cells. The histological characters of the growth seemed to be those of an adenomyoma, in which the stroma cells surrounding the gland tubes had undergone decidual reaction. The author thought that the decidual change supported the view that extra- as well as intra-uterine adenomyomata were of Müllerian origin.

This paper was discussed together with that of Dr. Archibald Leitch on migratory adenomyomata.

Dr. **Archibald Leitch** communicated a paper on

MIGRATORY ADENOMYOMATA

with epidiascopic demonstration. It was not uncommon to find endometrial tubules and stroma penetrating for some considerable distance into chinks in the musculature of the uterus where the organ was approximately normal, and in this way adenomyoma started. In the diffuse form of adenomyoma the connection between the endometrium and the characteristic parts of the tumour was easy to establish; but sometimes the point of entry of the endometrium was restricted and the connection was difficult to find. Further, in some intramural adenomyomata there was no association between the two, but their histological identity with the former group left little room for doubt that they had migrated from the endometrium. They might be found as subserous pedunculated tumours, or they might be extruded within the layers of the broad ligament. Finally, they might be quite separate from the uterus. A case was recounted of an adenomyoma in the base of the broad ligament still connected to the uterus by means of a very fine, long pedicle. The stage further would have been complete separation, and to explain the presence of a tumour containing glandular epithelium in such a situation the favourite theory was an origin from hypothetical Müllerian or Wolffian duct remains or a metaplasia of peritoneal inclusions. These hypotheses were rejected in favour of the migratory theory. He instanced two cases of adenomyoma of the recto-vaginal septum that had come under his notice. In one of these the gland tubules had actually penetrated the rectal wall as far as the submucosal layer. In both he could trace the tubules into the cervical portion of the uterus, and in both the cervical endometrium had penetrated far into the musculature, both approaching and, he thought, being continuous with each other. He reported in full a case in which a small discoid growth was found on the posterior wall of the uterus opposite to a tumour in the sigmoid loop of the pelvic colon. Both were typical adenomyomata, and the sections showed that the separation between the two was quite recent. He held that the original tumour had migrated through the uterine wall, had adhered to the dependent colon, and that the tubules had infiltrated the wall of the latter. Adenomyomata were infiltrating benign tumours, of a migratory character, always arising from the endometrium, and in whatever locality they were finally found they had the markedly typical characters that separated them from all other conditions. He had two cases which had taken on malignant change.

The discussion which followed on these two papers was opened by Dr. Cuthbert Lockyer, followed by Dr. Herbert Spencer, who said he did not think that the cases of retro-uterine and sigmoid adenomyositis shown by the President and Dr. Leitch were of endometrial or Müllerian origin; it was well known that the peritoneum formed decidua during pregnancy, and its presence in the President's case was no proof of Müllerian origin. He looked forward to the future history of that interesting case. One of the most disastrous results of radium was the peri-rectal fibrosis it set up. Wolff had found X-rays of little benefit in adenomyositis. Dr. Spencer had pointed out a year and a half ago, in discussing Dr. Lockyer's case of excision of the uterus and rectum for this condition, that the researches of R. Meyer, Amann and Renisch showed that the growth arose in the peritoneal endothelium. The researches of Pick, Orloff, Ivanoff, Opitz and others, and examination of the speaker's own three cases supported this view, which he was interested to see Dr. Lockyer now adopted. Migration of endometrium and the Müllerian and Wolffian theories did not explain some of the remote adenomyomata, which had been observed in the sigmoid, small intestine, stomach, pleura, pericardium, as well as in the pedicle of a ventro-fixed uterus. Dr. Spencer had in his last case performed hysterectomy and dissected the growth from the rectum with the galvano-cautery. The patient recovered, with normal defæcation. He agreed with Dr. Lockyer that adenomyositis was not a tumour except in the clinical sense. He thought also that the ordinary diffuse uterine "adenomyoma" was not a "tumour," but a hypertrophy and hyperplasia.

Dr. Walter Tate and Dr. Williamson also spoke. The President and Dr. Archibald Leitch replied.

Dr. W. S. A. Griffith then delivered his Presidential Address, a full report of which will appear in the *Proceedings of the Royal Society of Medicine.*

Votes of thanks were given to the retiring Officers of the Section for 1913-1914.

SPECIAL REPORTS.

ROYAL COMMISSION ON VENEREAL DISEASES.

At the forty-fourth meeting of the Royal Commission, evidence was given by Mr. J. E. R. Macdonagh, one of the Surgeons at the Lock Hospital, and by Dr. Parker representing the State Medical Service Association. Mr. Macdonagh said that at the present time the education of medical students in regard to venereal disease was quite inadequate, and it was very important in his opinion that compulsory clinical education of students in venereal disease should be adopted. He considered that widespread clinical experience would render public laboratories for the carrying out of bacteriological and other methods of diagnosing syphilis superfluous. The important thing in dealing with syphilis was to treat cases at the earliest possible moment, and these early cases could be diagnosed with greater certainty by clinical than by pathological methods. A negative Wassermann reaction in early syphilis did not exclude the disease, and if treatment were deferred until the reaction became positive, the golden opportunity of cure was lost, however energetic the treatment might be. Syphilitic sores, moreover, frequently existed in which spirochætæ could not be found. Mr. Macdonagh was of opinion that syphilitic nervous lesions were steadily on the increase, and he considered that the spasmodic administration of salvarsan commonly practised in this country was likely to lead to a further increase. This spasmodic administration of the drug, moreover, gave a false sense of security, and therefore rendered patients a greater danger to the community. He advocated that the Lock Hospital should be enlarged. The number of patients attending the hospital was steadily increasing.

Dr. Parker maintained that by the establishment of a State medical service many difficulties now connected with the treatment of venereal diseases could be overcome. It was essential that treatment should be efficient and confidential, and in the last resort compulsory, and that the Medical Officers of Health should be in touch with all cases of venereal disease. Efficient treatment would be procurable for the whole State service and would be open to all sufferers. The treatment would be confidential: there would be no special service of medical practitioners set side for dealing exclusively with venereal diseases, by consulting whom patients would at once declare to the world at large the nature of their camplaint. The size of the State Medical Service, its large and manifold functions, its large and specialised staffs would render it impossible for the public to suspect the reason which led the patient to ask advice. The treatment of venereal disease would be but a part of the preventive and curative treatment offered to all sufferers alike under a State Medical Service. No action whatever would be taken on the part of any public authority as long as a patient attended regularly and carried out the instructions of his doctor; but in the event of his failing to do so he would be proceeded against as a public danger in the same way as is done in the case of ordinary infectious diseases. Dr. Parker considered the difficult question of notification would be solved under a State Medical Service. Notification in the sense of a notice sent by a private practitioner to the Medical Officer of Health would become unnecessary for all patients attending a State doctor would be registered with the history and nature of their complaint, and to those persons the Medical Officer of Health, who would represent but another part of the same Service, would have daily access.

At the forty-fifth meeting the headmasters of Eton and Rugby appeared before the Commission. They considered that the ideal was that boys should be instructed in matters relating to sex by their parents, but their experience showed that that method was not likely at the present moment to be successful to the extent that it was desirable. Instruction at school should be given with much caution, and it should be the special responsibility of the headmaster to give it or to see that it was given. A propaganda based solely on hygienic principles would not bring in the chivalrous appeal which was necessary and was not likely to succeed. At the same time hard exercise, hard work, wholesome society and moderation in diet and drinking were of great use as safeguards against indulgence.

Dr. Bonner Harris Mumby, M.D., C.M., M.R.C.S., of Portsmouth, for 18 years Medical Superintendent of the Portsmouth Lunatic Asylum, and prior to that Medical Officer of Health for the Borough, left estate of the gross value of £13,020.

OPERATING THEATRES.

ROYAL FREE HOSPITAL.

Carcinomatous Stricture of Rectum.—Mr. Berry operated on a woman, æt. 41, who had been admitted for constipation and hæmorrhage. She had been ill for nearly two years. Nearly a year ago she began to be very constipated. She passed slime and blood, and the pain increased. About this period she was confined of a healthy child. For a fortnight previous to admission the pain got worse and she had no normal motion. A ring carcinoma could be felt about two inches inside the internal sphincter. At the operation Mr. Berry opened the abdomen, making an incision in the middle line. On examination of the viscera a secondary nodule of carcinoma as large as a walnut was found in the liver. It was, therefore, evidently useless to attempt removal of the primary growth in the rectum, so a simple colotomy was done. A colotomy was carried out, a Paul's tube being tied in. Mr. Berry said he knew no operation with such a variety of methods of being performed as colotomy. A great point to consider was whether the colotomy was only to be utilised as a temporary exit for the contents of the bowel or if the artificial anus was to be permanent. He pointed out that it was most important for the surgeon not to put on the stretch the portion of bowel withdrawn from the abdomen and in which the spur was to be formed. The piece of bowel withdrawn might be at first straightened out, but should always be slackened off before being fixed in position. There are many ways of forming a spur in the operation for cases of temporary colotomy; there is the slipping of a glass rod underneath the loop of intestine through a small hole in the mesentery, resting the ends of the rod on the abdominal wall, the rod is left in position three or four days before the bowel is opened. In cases where a permanent colotomy is desired, one of the best methods is to unite the posterior part of the rectus sheath through a small hole in the mesentery, then to tie very stout or thick silk ligatures round the bowel outside the abdomen, leaving a portion of bowel to slough away subsequently; this provides two separate colotomy openings, the upper one permitting fæcal matter to escape, the lower permitting irrigation of the lower part of the bowel, should that be necessary. Should it be necessary to open the bowel at the time of operation, a Paul's tube can be tied into the upper end of the bowel, whilst a stout silk ligature is left tied round the lower end; generally this separates in the course of a few days, but by this time the peritoneal cavity is well shut off from all risk of infection.

CORRESPONDENCE.

FROM OUR SPECIAL CORRESPONDENTS ABROAD.

FRANCE.

Paris, July 11th, 1914.

Nocturnal Incontinence of Urine.

The treatment of nocturnal incontinence in males consists in practising injections of artificial serum into the cellular tissue of the perineum with the view of distending the terminal nerve filaments of the region, and so provoking a stimulating effect on the neck of the bladder and the striated muscles of the urethra. The modus operandi of these injections is simple: the patient being placed on his back and in the position for lithotomy, and the skin disinfected with iodine, the injection is made with a Roux syringe half an inch on either side of the raphé and midway between the scrotum and the anus. The needle should not be pushed beyond the cellular tissue and the liquid injected as rapidly as possible, so as to form on each side a tumour containing from two to four ounces of serum; four or five syringes are necessary. The operation is almost painless, and does not prevent the patient from resuming immediately his occupations. In general from three to four ounces of liquid on each side are sufficient, but the dose may be increased if required. The author, Dr. Gahier, has utilised this method in thirty cases; the results were excellent in twenty-four patients—eighteen were cured after the first injection, six required two or three sittings, while the remaining six patients experienced no benefit.

Delamarre applied the method to nine patients and obtained four cures with only one injection, two after two injections, while three required four or five sittings, but all were cured. Bergasse had twenty-two cures out of twenty-two patients treated, and Gary five out of 7 cases. The treatment may also be employed in children, but the quantity of serum should not exceed one or two ounces, so as not to distend the teguments beyond measure.

Hydrocele.

The classical medical treatment of hydrocele consists in evacuation of the liquid, injection of two drachms of a solution of cocain (1·50) left in for five minutes and followed by tincture of idodine for the same time. The method is good, but rather painful.

Dr. Sattre prefers, after tapping the liquid, injecting 40 drops of a solution of adrenaline—half a grain of adrenaline for four ounces of water (0.02-100). This method has the advantage of being entirely painless, while relapse is rare.

Supra-renal Virilism.

Prof. Tuffier presented at the meeting of the Académie de Médecine, a woman, æt. 62, who entered the hospital six months before for abundant metrorrhagia indicating a voluminous fibroma. As the urine was found to contain a large quantity of sugar, all operation was deferred. But what was remarkable about this patient was an extraordinary development of hair on the face and more or less over the body; the beard and moustache were well furnished, the voice was masculine, while the muscles were well developed and outlined. Examination of the genital organs showed a clitoris an inch long and covered with a large prepuce. All these phenomena began to appear after the menopause, and at the same time the habits of the woman underwent a change; she showed a preference for hard manual labour. Through medical treatment the sugar diminished more or less rapidly, so that at the end of six weeks laparotomy was possible. No fibroma was discovered, but on the other hand the uterus was abnormally hypertrophied and removed. In exploring the abdominal cavity, M. Tuffier come on a lipomatous mass covering each kidney. In his concluding remarks, M. Tuffier thought, with Gilbert Ballet and Gallias, that signs of virilism in the female should attract attention to a possible supra-renal tumour, which, recognised at an early date, could be treated with some chance of success.

Varicose Veins.

The usual treatment of varicose veins is the wearing of an elastic stocking or bandage and iodide of potassium or hamamelis given internally. However, something more might be done to the satisfaction of the patient. Prof. Robin advises washing the legs each morning with a solution of silicate of soda (1-100), leaving them to dry, and then powdering them with

Starch powder, 3 oz.
Oxide of zinc, 3 dr.
Camphor, 1 dr.
Essence of geranium, 6 drops.

Internally, six drops at each meal and continued for months, of

Tincture of hamamelis, 1 dr.
Tincture of viburnum, 1 dr.
Tincture of piscidia, 1 dr.

If sclerosis of the walls of the veins exists, iodide of potassium and bicarbonate of soda must be given and the following ointment passed over the veins:—

Iodide of potassium, 1 dr.
Ergotine, 1 dr.
Tincture of nux vomica, 15 drops.
Axunge, 1 oz.

Baths of Bagnols salt, followed by gentle massage, are also to be recommended, or, better still, the patient might be sent to the baths of Bagnols-de-l'Orne.

GERMANY.

Berlin, July 11th, 1914.

At the Gesellschaft der Charité Aerzte, Hr. Lotsch, before the commencement of the ordinary business, begged to introduce the case of a girl of twenty who had suffered from symptoms of

Gastric Ulcer.

She was admitted into the Charité in December last. Three years before she had suffered from symptoms of gastric ulcer she had vomited blood and was then free from trouble. In November she began with fresh trouble, nausea and repeated vomiting of blood. The patient was admitted, as after two days the hæmatemesis never ceased, and the patient's death was certain if nothing was done. He was asked to operate, and, bearing in mind the desperate nature of the case, he proceeded to do so. He was able to show the patient alive; she was not strong, but she had never been so. (Patient shown). They saw the oblique incision. It healed per primam; she had no hernia and, as regarded the cicatrix, was quite free from trouble. Under such circumstances the surgeon was placed in a precarious position. Of the four chief complications of gastric ulcer—hæmorrhage, perforation, stenosis and malignant degeneration—the first named belonged specially to the physician, and would continue to do so. The surgeon only came into the question in hæmorrhage in rare cases. Here there was first abundant hæmorrhage, secondly this had recurred after only a short interval, and also the patient was very much exhausted. The hæmoglobin content was reduced 30 per cent., the number of erythrocytes was two millions. Much could have been said against active treatment, the bad condition of the patient, who could not stand any severe operation. For this reason only a strictly vital indication could justify operation. Secondly, there was the difficulty of finding the ulcer. Whilst ulcers perforating into the free abdominal cavity were mostly seated on the anterior wall of the stomach, the hæmorrhage was mostly behind, above the cardiac end and difficult to find. Bearing in mind the difficulty of the operation, the decision had to be made whether the ulcer was chronic or recent. The deep ulcers which had eaten through the wall of the stomach and eroded the vessels of the pancreas were especially difficult to treat; they were easier to find, but arrest of hæmorrhage from the operation was not at all easy. The more recent, which closely resembled hæmorrhagic erosions, were often so small that they were difficult to find and awkward to treat surgically. From all that could be learned the ulcer was seated on the pylorus. He made a wide incision in such cases, as small ones were of no use; the whole thing was a question of moments; one had to make the opening wide. The incision was oblique, he had proceeded after Marwedel's method, and the whole field of operation lay before his eyes. On the pylorus was an imperceptible thickening. They opened the pylorus; nothing was to be seen of any ulcer. The incision was then closed by suture. His assistants believed the operation would have to be abandoned. He could not resist having another try, so he prolonged the incision towards the cardia, over the stomach until it was 20 centimetres in length. In spite of careful wiping nothing could be seen of the ulcer. Then the speaker was reminded of his pathological days, where bodies were sometimes met with in which the stomach was filled with blood clot, but nothing could be seen of any source for it until the master came and showed them the ulcer very small, only a pin's head in size. He passed his gloved hand into the stomach, and between the folds just above the lesser curvature high up in the cardia, he felt a projection the size of a pin's head. That must be the bleeding spot. A spatula was placed under, and he then saw a clot of blood on the projection. He had a Paquelin with him, and applied it when the cloth was washed away and the artery, now exposed, spurted a stream of fresh blood. He then applied the cautery and closed up the stomach. Recovery was quite uneventful. Naturally it would be a long time before the normal condition of her blood would be restored. It was only very rarely that hæmorrhages from the stomach could be treated in that way. The cases in which such treatment was demanded seldom were fortunate, most frequently for the reason that the ulcer could not be found. The lucky result gave him the opportunity of exhibiting the case, otherwise it would only have been seen on the *post-mortem* table. He would likewise remark that cases of that kind were comparatively rare. He had that day made a search through their preparations, but he had not been able to find a similar case in their pathological museum.

AUSTRIA.

Vienna, July 11th, 1914.

Tenth Congress of the Deutscher Röntgen-Gesellschaft.—(*Continued.*)

II.—Diagnostic Application (Thorax, Abdomen).

Dr. Alban Köhler (Wiesbaden) read a paper on "The Röntgen-ray Diagnosis of the Parasites of Man." He illustrated his subject by photographs of calcified cysticerci in various parts of the body. Shadows of the calcareous deposits, varying in length from 7 to 9 millimetres, and from 2 to 4 millimetres in width, had been obtained and were now reproduced. These had been met with in the leg, thigh and lumbar region, and the longitudinal axis was always found parallel to that of the muscular fasciculi in which it happened to be imbedded. Röntgen-ray photographs of a lung were also shown by Dr. Köhler, in which calcified ova of the distomum pulmonale were freely disseminated throughout. The shadows in this case were circular in outline, and of 2 to 3 mm. in diameter. The diagnosis was also confirmed clinically by examination of the evacuations. A specimen was also presented the round shadows of which had at first been taken for that of an echinococcus, but which afterwards had proved to be those of metastatic carcinoma.

Dr. Hessel (Bad Kreuznach) made a communication on "A method by which the Normal Œsophagus could be illustrated with the help of Röntgen-rays." A piece of pig's intestine which had been filled with a contrast test meal was swallowed, and by its presence he was able to demonstrate the process of swallowing, after which he observed its course during its passage through the body. In the course of the subsequent discussion, Dr. Holzknecht (Vienna) stated that the outlines of the œsophagus could be demonstrated during the passage of a mouthful of ordinary soft food. He had observed that more ascending movements were made during the first pair of acts of deglutition, some of those being functionally effective.

Dr. Grunmack (Berlin) discussed the subject of the "Diagnosis and Therapeutic Treatment of Gastrospasmus," and exhibited a number of examples. He adopted as a contrast test meal complete flooding of the stomach. With regard to this point, Dr. Haudek (Vienna) remarked that we should be cautious in making a diagnosis of gastrospasmus. Dr. Schwarz (Vienna) then stated that in making a diagnosis of gastrospasmus there were three varieties of this condition which require to be differentiated: the first is that which accompanies the presence of ulcer; it is characterised by retraction of the great curvature of the viscus. The second is the spastic condition of the antrum; in cases of "tetanus" of the antrum this is not obvious at first, as it appears but for a short time, and the contraction recurs periodically. When the test meal is introduced into the right side of the cavity of the stomach the antrum is freely unfolded. The third and most important form of gastrospasm consists of contraction of the caudal portion of the stomach into a cavity which displays the outlines of an ox-horn.

Dr. Haudek (Vienna) made a communication on

Hypersecretion and Gastric Motility.

The retention of bismuth by gastric tumours is not infrequently the only available sign for Röntgen-ray diagnosis of those neoplasms. The retention of bismuth in cases in which there was no pyloric stenosis present has hitherto been chiefly referred to the effect of pylorospasmus. Yet the absence of sedimentary deposit after the test meal, which he had himself observed, and its presence in the duodenum after flushing would form items of evidence of patency of the pylorus. The cause of retention appeared to Dr. Haudek to be a resultant of two forces—a high degree of hypersecretion and high elevation of the viscus. In a case of long, hooked stomach, sedimentation of the test meal very soon took place in the presence of hypersecretion. The ingredients of the test meal sank to the bottom of the gastric cavity, while in the upper parts of the same, as well as in the antrum pylori, a bismuth-free fluid collected. This was pressed out of the stomach and a new collection formed, the visible amount of gastric contents being thus but little diminished, while a gradually diminishing sedimentary deposit remained for a number of hours. Thus a high-grade bismuth retention in a sharply-curved stomach is concurrent evidence of high-grade hypersecretion; and as this is in turn elicited by the presence of gastric tumours the presence of a gastric sediment is indirectly symptomatic of the presence of a neoplastic growth in that cavity. In the case of a ducdenal tumour, on the other hand, hypersecretion also exists; but the hypertonic condition of the muscular wall of the stomach which is produced by its presence, and the fact that such growths usually occur in persons with slanting stomachs have the combined effect of making a deposit rarely visible in a case of ulcus duodeni after the lapse of six hours—except a very slight one in the vicinity of the caudal pole of the cavity of the stomach. In the case of a long, hooked stomach, however, it may be found to remain in moderate quantity after that interval, even when the initial evacuation had begun early and proceeded quickly. The author had confirmed those observations by experimental researches with egan- and urano-papaverin.

Dr. Hänisch asked whether in such cases—with hypersecretion—the peristalsis was diminished, while it was increased in the presence of pylorospasmus. This fact by itself forms a diagnostic landmark. Dr. Graedel thereupon observed that when a persistent fulness of the duodenum co-exists with a Holzknecht stomach, it is indicative of functional insufficiency, while in the case of a hooked stomach the chyme is held back.

Dr. Haudek, in reply, stated that in a distended stomach deep peristaltic waves were typical of pylorostenosis. But they first appear after a considerable interval.

Dr. G. Schwarz (Vienna) made a communication which discussed the use of acid test capsules. Gelatine capsules were filled with the test powder and tied with thread dyed with Congo-red. They were then swallowed, while the free ends of the threads were held in the mouth. Their position in the stomach was observed by Röntgen-ray illumination; they were withdrawn after ten minutes, when the capsule was seen to be dissolved. The colour reaction then gave the proportional acidity.

Dr. Lehmann (Rostock) demonstrated a "*bezoar*" hair mass in the stomach of a girl, æt. 15. The foreign body was seen to form a complete cast of the stomach, the Röntgen picture of which showed a spotty outline, which moved with the stomach. The mass on removal was found to weigh 350 grammes.

Dr. Haudek then demonstrated a similar case.

Drs. Levy-Dorn and Ziegler made a communication, "On the Characteristic of Röntgen-ray Gastric Symptoms as revealed in numerous Autopsies." They had tabulated the results of 96 cases in which the clinical and Röntgen-ray findings had been controlled by operation or *post-mortem* dissection—sometimes by both. The revelations of surgical procedure could not be regarded as absolutely final, as they had disagreed with those of *post-mortem* examination in no less than five instances. Further observation had led them to raise the question: how far the revelation afforded by a single Röntgen-ray picture could be relied on as demonstrative of the condition of the stomach. Scarcely a single sign or symptom was conclusive, so that repeated observation should be carried out and controlled by clinical evidence. Among other sources of confusion was the presence of gastric adhesions—a very important one. The same could be said of gastric tumours. The outline of the sedimentary deposit is often segmented by the presence of tumours. Adhesions may draw the stomach in various directions; those of the pyloric end have displaced it as much as 4 centimetres to the right. The stomach, when adherent to the gall-bladder, can give positive only in the presence of ptosis and a high-placed and transverse pyloric end.

Dr. Holitzsch (Budapest) made a communication on the "Evidence given by the Röntgen-rays in Cases of Ulcus Ventriculi and Ulcus Duodeni." Of the presence of those lesions he presented two examples, in which the evidence had been confirmed by operation. In each the clinical symptoms had been insufficient, and it was by the radiological evidence obtained before the operation that the multiplicity and unusual position of the lesions had been ascertained.

Dr. Haudek (Vienna) stated during the discussion that hundreds of microscopic ulcers had been demonstrated by the Röntgen-rays which could not be found by the surgeon. He also referred to the sources of failure which were referable to periduodenitis and to alterations of pancreatic function.

Dr. David has by his own method demonstrated the presence of abnormal foldings of the duodenum and of the jejunum. He had also succeeded in influencing the course of the contents of the last coil of the small intestine and depressing the tone of Bauhin's valve by the use of novocain.

Dr. F. M. Graedel demonstrated the presence of tuberculous tumours in the ileo-cæcal region with the Röntgen-rays. He also showed how insufficiency of Bauhin's valve is usually the result of chronic perityphlitis, and demonstrated the presence of a chronic appendicitis with ileo-cæcal invagination.

Dr. Hänisch (Hamburg) and Dr. Schwarz (Vienna) made communications on the Röntgen-ray diagnosis of lesions of the large intestine. The former demonstrated a shadow of carcinoma of the sigmoid flexure, and another in the ileo-cæcal region, pronounced stenosis of ascending colon, perisigmoiditis, syphilitic lesions, ulcerative colitis with hepatoptosis, Hirschsprung's disease, megacolon and megasigmoideum, and invagination of the cæcum which had passed into the descending colon, in a baby of seven months. The latter also demonstrated a number of tumours, stenotic alterations, and polypi of the large intestine.

Drs. Sabat and Sczepansky (Lemberg) read a paper which embodies their observations on eight cases of Interpositio coli hepato-diaphragmativa which they had met with in the course of seven months.

Dr. Huismans (Cologne) gave a demonstration of the practical application of the telecardiograph.

Dr. Ziegler made a communication on "The Diagnosis of Commencing Dilatation of the Aorta, especially of the Arch and Descending Portion."

UNITED STATES OF AMERICA.

New York June 30th, 1914.

ANNUAL MEETING OF THE AMERICAN MEDICAL ASSOCIATION.

THE sixty-fifth meeting of this Association, which began in Atlantic City on June 22nd and lasted up to June 27th, was the largest in the history of the Association. There were present 3,578 members at the opening session held in the Apollo Theatre on the Broad Walk.

Dr. Witherspoon, the retiring president, as a last official duty, presented, on behalf of the Association, a gold medal to Dr. William Crawford Gorgas, Sanitarian, whose genius made possible the construction of the Panama Canal.

The President-elect (Dr. Victor C. Vaughan) was introduced, and delivered his presidential address. He took as his subject

THE SERVICE OF MEDICINE TO CIVILISATION,

and said in part that the history of medicine was that of mankind. Born in naked ignorance, bound in the swaddling clothes of credulity, and nursed on superstition, medicine has had its savants and its fakers, its triumphs and its failures, its honours and its disgraces. It has attracted, and still attracts, to its ranks men of the purest motives and those who are impelled by the basest desires. It can be said without fear of contradiction that medicine has done more for the growth of science than any other profession, and its best representatives in all ages have been among the leaders in the advancement of knowledge, but the average medical man conforms in intellect and character to the community in which he lives. The food of the faker is ignorance, and he thrives where the commodity is most abundant. A wise Government protects its incompetents from medical and other fakers, but such Governments exist only where wisdom predominates.

Among a wealth of able papers read was one by Dr. M. P. Ravenel on the

Education of Health Officers.

The author emphasised the need for specially trained men to fill the positions of health officers. The ideal man was one who had had a thorough training and who received a sufficient salary to enable him to devote his whole time to such work. At present, in most places the compensation was small and few men could afford to give up their practice to accept the position of health officer. Neither public sentiment nor professional opinion had demanded selection of men who had received special training, therefore we found very few universities or colleges which had any uniform courses leading to such training. Medical schools should impress upon the minds of their students the idea of preventive medicine, and more young practitioners should prepare themselves for the positions which were offered by the local health boards. The community must join with the profession in urging the appointment of some competent man, devoting his whole time to the health of his community, a man of general as well as of special experience. The first requisite was a good general education, including a knowledge of veterinary medicine, geology, hygiene, general, special and applied medical inspection, bacteriology, vital statistics, public health administration, and sociology. The health officer should be a graduate of medicine, and should be familiar with the various contagious diseases. It was needful to have fully-trained men appointed without political influence. It was also desirable that the colleges and universities should have uniform courses leading to the degree of Doctor of Public Health.

Gift in Aid of Medical Research.

Mr. John D. Rockefeller has given recently the sum of $2,500,000 (£500,000), to be applied in the erection of laboratories and buildings, and for the purchase of additional land for the Rockefeller Institute for Medical Research. This gift is in addition to a special fund of $1,000,000 (£200,000) which Mr. Rockefeller provided a short time ago in order that the Rockefeller Institute might establish a Department of Animal Pathology. Dr. Theobald Smith, now Professor of Comparative Pathology at Harvard University Medical School, has been appointed Director of the new department. Mr. Rockefeller's previous gifts to the Institute had amounted to $9,000,000 (£1,800,000). The Rockefeller Institute will, with the latest gift, become the most amply endowed institute for medical research in the world. In addition to the laboratories there is connected with the Institute a hospital with every improved facility for the treatment of patients afflicted with diseases at the time under special investigation. For the treatment and study of contagious diseases there is a separate building with isolated rooms. The scope of the work of the Institute is indicated by a list of the several special scientific departments which it maintains, including pathology, bacteriology, protozoology, biological chemistry, physiology and pharmacology, experimental biology and animal pathology.

Dr. Frankland (Washington) has described a simple

Method of Testing the Renal Function

by the use of phenol-sulphone-phthalein. The patient first drinks one pint of water, after which 6 mg. of the dye is injected into the lumbar muscles. The urine is passed or drawn into a vessel containing an alkaline solution every five minutes after the injection until a pink colour is observed, and every hour afterwards until the colour is no longer present. Several bottles are numbered for the reception of the specimens in the order passed, and their contents must be made alkaline if not already so. In normal cases the dye should appear in the urine in from five to ten minutes, and its excretion should be completed about the end of the third hour. The fourth bottle of urine would therefore be uncoloured, those preceding it showing the presence of the dye. In abnormal cases in which the appearance of the dye in the urine is delayed and the time of elimination prolonged, the results will be apparent in the bottles accordingly. Cases of valvular disease and of toxæmia of pregnancy having indicanuria and casts were observed to require from five to eight hours for complete elimination, and a cardio-renal case which died four weeks later had appearance delayed more than fifteen minutes, and excretion required sixteen hours.

FROM OUR SPECIAL CORRESPONDENTS AT HOME.

SCOTLAND.

Panel Doctors' Incomes in Glasgow.

It appears from the minutes of Glasgow Insurance Committee that at January 11th last 374 medical men were on the panel. This represents about three-fourths of the profession in Glasgow. For the year that ended on the above date one doctor received £1,625 8s. 1d. for having 4,468 persons on his list, and another received £1,453 8s. 8d. for 3,984 persons. Four with an average of 3,275 patients received on an average £1,189 8s. 1d. each, and seven with an average of 2,718 received on an average £986 15s. 8d. each. Again, 17 with an average of 2,223 received on an average £807 17s 9d., while 46 for an average of 1,715 persons received on an average £618 15s. 2d. Further, 65 for an average of 1,246, received an average payment of £447 13s.; 97 for an average of 725 received an average payment of £261 2s. 8d.; and lastly 138 doctors for an average list of 191 persons received an average payment of £66 12s. 4d. During the same year, £1,097 was paid to 19 practitioners whose names were withdrawn from the panel list owing to resignation or death. The total of the payments to chemists, etc., was £27,522 16s. 11d., while £1,272 10s. 10d. was paid in respect of insured persons permitted to make their own arrangements for medical attendance and medicines.

The Royal Visit to Glasgow.

The King and Queen opened the reconstructed Royal Infirmary and the new Royal Hospital for Sick Children on 7th inst. At the Royal Infirmary, their Majesties saw an electro-cardiogram taken of the pulsations of a patient's heart, under the superintendence of John Macintyre, consulting medical electrician to the hospital. In the cinematograph X-ray room the King and Queen saw X-ray photographs being taken in the three-hundredth part of a second, and also a series of photographs automatically taken in rapid succession. Shortly afterwards by means of cinematographic films, the photographs were shown on the screen. The next apparatus inspected by their Majesties enabled them to see, clearly defined, the movements of the stomach in digestion, and caused them considerable amusement. The latest appliances for directly examining the throat and windpipe also aroused much interest, the apparatus being attached to an imitation gullet into which a coin had been inserted. The method of extracting it or any other foreign body was demonstrated to their Majesties, who next saw the means by which tumours in the throat and lower down in the respiratory track can be removed by the deep-seated X-ray therapy without hæmorrhage in cases unsuitable for operation. Their Majesties were shown the newest arrangements for testing the muscles and nerves, and afterwards an apparatus for the removal of superfluous fat from the body. The patient rests on a couch and electrodes are placed on any part of the body where it is desired to remove deleterious products. By a simple arrangement faradic currents are sent to any part and the muscles are made to contract. Weights made of sandbags are put on the body, up to 50 lbs. or 100 lbs., and the interruptions are made a few times more than the number of the beats of the heart per minute. It is possible, when a person with a weak heart cannot take exercise, to remove as much as 1 lb. or more per day without any exertion whatever on the part of the patient.

AT THE SICK CHILDREN'S HOSPITAL.

His Majesty was especially interested in the excellently equipped theatre, which is lighted on the searchlight principle, and listened to a description of it by Dr. T. Kennedy Dalziel, senior Consulting Surgeon of the hospital. Dr. George S. Middleton, Senior Consulting Physician, was also presented to their Majesties. After leaving the hospital the King and Queen visited the grounds of the Western Infirmary and of the University, and received an address from each. Lord and Lady Newlands have made a donation of £25,000 to the Western Infirmary to complete the endowment of the Lady Hozier Convalescent Home at Lanark and to commemorate their Majesties' visit to Glasgow and Lanarkshire.

BELFAST.

BELFAST LOCAL MEDICAL COMMITTEE.

A MEETING of this committee was held in Belfast on the 7th inst., Mr. R. J. Johnstone, Chairman, presiding. The following names were sent forward to the Insurance Commissioners at their request as being suitable for election as members of the Belfast Insurance Committee:—Dr. J. R. Davison and Dr. T. A. Davidson. The latter has acted as Secretary of the Local Medical Committee since its formation with much acceptance to the members and the profession generally, and the former seeks re-election. If the Insurance Commisioners are guided by this selection the profession in Belfast will be perfectly satisfied.

QUEEN'S UNIVERSITY OF BELFAST.

There was a large number of candidates for the degrees in medicine at the midsummer examinations, no fewer than 46 presenting themselves for the M.B. degree examinations. Of these 32 were successful, 14 being referred. The honours list was the largest in the history of the University. One candidate, Mr. R. M. Beath, obtained first-class honours with a scholarship of £30. Mr. G. R. B. Purce and Mr. W. S. B. Hay obtained second-class honours and scholarships of £30 each. Mr. Sinclair Miller obtained second-class honours with a scholarship of £20, and Messrs. A. Fullerton, E. B. C. Mayrs and E. C. T. Emerson obtained second-class honours. At the M.D. degree examination Mr. D. McKay obtained a gold medal. The Magrath Scholarship of £105 was won by Mr. Sinclair Miller. At the M.Ch. examination Mr. T. S. S. Holmes obtained a gold medal.

LETTERS TO THE EDITOR.

[We do not hold ourselves responsible for the opinions expressed by our Correspondents.]

IMPERIAL ASPECTS OF THE POPULATION QUESTION: THE DECAY OF FRANCE.

To the Editor of THE MEDICAL PRESS AND CIRCULAR.

SIR,—The much more than remarkable correspondence dealing under different headings with the question suggested in the first part of the title of this letter is still going on in the *Times*. The contributors are all men of real distinction. It is curious that not one of them alludes even distantly to the population phenomena displayed in France; not one of them refers to the fact that voluntary limitation of the birth-rate in France has made her population virtually stationary when compared with her mighty neighbour Germany; that she has not enough men for her home requirements; that she has for ever lost her place as co-equal among the Great Powers; and by cutting off the supply derived from an exuberant people has made it impossible that she can ever become a great imperial state. She has no surplus to export to her vast territories across the sea well fitted for European settlers. There are, for example, practically no Frenchmen in Madagascar. This island, a thousand miles long, is traversed by a chain of mountains whose slopes provide one of the finest climates in the world, whilst the lower lying lands, thanks to medical science, could in great part be freed from tropical disease. It is possible that France is holding her own in science, art and literature, in the field of intellect, but she lacks men. She is enormously wealthy. She recently brought out a loan of £40,000,000, which was at once offered for forty times over almost entirely by her own people. It is a people among whom wealth accumulates and men decay, and it is absurd to suggest that amidst this wealth it can be in any large proportion of cases economic pressure which leads to the limitation of the family to two or three children.

It is curious to notice that our newspapers almost without exception refrain from touching editorially upon this subject. Some of them, like the *Times*, report fully the utterances of leading French men of science, men of letters, and statesmen, confessing the perilous position of their country, due not only to the paucity but the inferiority of the population; but no British journalist, so far as I can find, ever refers to this topic or allows it to be discussed in his pages. The *Pall Mall* some few years ago allowed me at considerable length to examine the question in its correspondence columns, but such letters are now never to be found in any leading journal of the day. Human nature on one side of the Channel does not differ fundamentally from that displayed on the other; and there can be no doubt that like causes will produce in time among ourselves results similar to those already accomplished among our neighbours. If our population were increasing at a "normal" rate we should not now be able to supply the requirements even of Canada and Australasia alone, as set forth by their Agents-General in the *Times;* whilst besides these Diminions, each as large as Europe, we have to populate our enormous territories in Africa, and in a score of vast, albeit minor colonies. The population question is the fundamental question. We have to put an end to the persistent decline in the birth-rate and take care—it is easily within our power—that our surplus shall be free from the physical and ethical defects which at present render so great a part of them useless at home and totally unfit to be offered as immigrants to our colonies. In previous letters I have touched upon the fact that interference with the birth-rate as practised among the French and ourselves constitutes a gigantic system of selection of the wrong sort. To this aspect of the question I may, with your permission, return on a future occasion.

I am, Sir, yours truly,
HENRY SEWILL.

The Old Rosery,
Earlswood Common.
July 11th, 1914.

REVIEWS OF BOOKS.

CHRONIC COLITIS. (a)

THE modern fashion in medicine is to seek in the colon for the explanation of the majority of diseases to which our flesh is heir. Since Elie Metchnikoff, some seven years ago, published his fascinating book of optimistic studies on the "Prolongation of Life," one can trace the rapid rise of this organ to a place of importance as a causative agent in pathological conditions. So much is this the case that now it would appear that some would advocate that every sick person, and many apparently healthy ones, should submit to be deprived of their colons at the earliest opportunity. Some, on the other hand, recommend that the colon should be preserved, and in its rich content of flora and fauna should be sought not only the cause of disease, but also the therapeutic agents for administration to the patient. The latter idea is no new one, for though nowadays only selected parts of the fæcal content are used as medicines, yet formerly the crude material was much in request. The authors of the book before us have not adopted either of these extreme views, but have contented themselves with describing with minute detail one form of disease of the colon, and in giving most elaborate directions for its treatment. That the disease has a real existence we have no doubt, and that when present its recognition and cure will be of great benefit to the patient is also certain, but we doubt very much if it was necessary to devote a book of 276 pages to explain this. However, our authors believe that their book is the first English manual that has appeared on the subject, and we may be permitted to hope that it will be some time before its pre-eminence is disputed.

(a) "Chronic Colitis. Its Causation, Diagnosis and Treatment." By George Herschell, M.D., and Adolphe Abrahams, M.D. 8vo., pp. x. and 276. London: Longmans, Green and Co 1914. Price 6s.

STELWAGON ON SKIN DISEASES. (*a*)

The appearance of a seventh edition of a standard American treatise on diseases of the skin is a matter of interest to all concerned in that special branch of medicine. It contains some 1,200 pages of crown octavo size, with upwards of 350 illustrations, many of the latter possessing considerble technical excellence. In common with many American reference books, it shows a striking breadth of comprehensiveness as regards compilation, but the author does not on that account lessen the grip of individual experience, which is, of all things, important to the serious student of a special subject. It is impossible to do justice to a book of this quality within the limits of a short revew, but a few random notes may be made *passim*. Turning to "warts," we find a full discussion of this interesting condition. The credit of observing micro-organisms in connection with these growths is ascribed to Kühnemann, but, as a matter of fact, his work was, we believe frankly, based on that of Majorchi, who described the *bacterium povri* in connection with warts. The article on syphilis is able and interesting, and is illuminated by some illustrations of striking clearness. There is a beautiful coloured plate of an acneiform pustular syphiloderm of general distribution.

In dealing with drug rashes the theory of irritation in the process of elimination is mentioned; but in spite of abundant bibliography which characterises the author's compilation, no mention is made of the English author by whom this suggestion was originally advanced. The book may be commended as an excellent work for all dermatologists.

SCROFULOSIS. (*b*)

Progress in medicine has not infrequently been checked by the tyranny of a name, which, though apparently definite and precise, is merely a mask of ignorance. Groups of symptoms, or disease pictures, imperfectly understood, are given a name for the mere convenience of description, and when that name has become sufficiently familiar there is a tendency to consider the picture explained as soon as it can be classed under its official nomenclature. In olden days the term scrofula was used to describe the condition of certain persons with swollen necks from their supposed resemblance to a pig. Such swollen neck was often found to be due to enlargement of the lymphatic glands. Where the condition was due to the enlargement of the thyroid gland the term struma was applied, but the distinction was soon lost, and strumous and scrofulous came to be used almost as synonyms, and extended vaguely to that condition of the patient which so frequently accompanies certain forms of lymphatic enlargement. When the discovery was made that many forms of glandular enlargement were due to infection by the tubercle bacillus it seemed as if some definiteness was to be introduced into the meaning of the term scrofula, and for some time, in these countries at all events, the terms scrofulous and tuberculous became synonymous. More recently an effort has been made to differentiate between the two terms and to restrict the meaning of scrofula to include those conditions of young people which form a suitable breeding ground for the tubercle bacillus, but which have not yet been infected by it. That there is such a condition of children is probable, but whether it is wise to designate that condition as scrofulosis we doubt very much. We would prefer that the term should disappear altogether from medical nomenclature.

While we differ from Professor Cornet in his use of the term, we are in full agreement with him in the importance of the conditions which he describes, and we are indebted to him for the admirable description of them which he gives. Not only are these conditions well described, but the treatment, both from the point of view of prevention and cure, is given with a wealth of detail which makes his book a valuable and interesting contribution to medicine. A full biography is a notable addition to the work and greatly increases its usefulness.

MEDICINAL TREATMENT. (*a*)

It is not necessary to do more than draw attention to the second edition of the English translation of Professor Ortner's work, which is already in its fifth edition in the original German. The translation is primarily intended for the use of American practitioners, and the references to climatology have been adapted for their use. This, however, does not in any way detract from the usefulness of the book for students in Great Britain, as both English and Continental watering places are mentioned. The translation appears to be well and carefully done, and Dr. Bartlett has succeeded in giving us the author's meaning in idiomatic English.

MINOR MEDICINE (*b*)

Since Dr. Wynter's little book was first published in 1907 it has been reprinted four times and now a second edition is called for. We congratulate the author on the success which such a history of his work indicates, and we feel sure that a similar warm reception will be extended to this the second edition as was given to the first. Minor ailments are just those conditions which the young practitioner is first called upon to treat, and yet his study in the schools and in the hospitals has given him little or no help in knowing what treatment to employ. It is a mortifying position to find oneself in, yet we fancy it is not uncommon. It is no easy matter to supply this want efficiently, but our author appears to have succeeded admirably. Trivial symptoms often indicate serious disease, and one must guard against the danger of mistaking the beginning of a serious illness for a minor ailment. If, however, such a book as that before us is to fulfil its function it must treat of minor ailments, and not become a complete system of medicine. Dr. Wynter appears to have admirably avoided the pitfalls that beset his path and to have given us a book which deals fully yet concisely with its subject. The appendix of "Formulæ" at the end will be found of great use by many.

(*a*) "Treatise of Diseases of the Skin." By Henry W. Stelwagon, M.D., Professor of Dermatology, Jefferson Medical College, etc. Seventh Edition. W. B. Saunders Co. 1914.

(*b*) "Scrofulosis." By Prof. Dr. G. Cornet. Translated from the second German edition by J. E. Bullock, M.D. German Tuberculosis Classics. Issued on the advice and under the direction of Egbert Morland, M.D., B.Sc. London: John Bale, Sons and Danielsson, Ltd. 1914. 8vo., pp. xii. and 515. Price 15s.

(*a*) "Treatment of Internal Diseases, for Physicians and Students." By Professor Norbert Ortner, of the University of Vienna. Edited with additions by Nathaniel Bowditch Potter, M.D. Translated by Frederic H. Bartlett, M.D. Second edition in English, revised and reset, from the fifth German edition. Philadelphia and London: J. B. Lippincott Company. 1913. 8vo., pp. viii and 643. Price 21s.

(*b*) "Minor Medicine: A Treatise on the Nature and Treatment of Common Ailments." By Walter Essex Wynter, M.D., F.R.C.P. Lond. Second edition, revised and enlarged. 8vo. Pp. xxviii. and 275. New York and London: D. Appleton and Company. 1914

LITERARY NOTES.

Messrs. Baillière, Tindall and Cox announce the following new books and new editions :—

"Intensive Treatment of Syphilis and Locomotor Ataxia by Aachen Methods. (Price 3s. 6d.) In this book the author, Dr. Reginald H. Hayes, maintains that inunction methods are still the best in many forms of spirochætal infection.

Dr. Langdon Brown's "Physiological Principles in Treatment" (price 5s.), has rapidly reached a third edition. From the first this has been a successful book and in the revised edition much new material has been added, dealing with the latest methods of treatment.

The eighth edition of the late Dr. Murrell's "Aids to Forensic Medicine" (price 2s. 6d.), makes its appearance after revision by Dr. W. G. Aitchison Robertson, of Edinburgh. Additions to meet present day requirements have been made and some of the material has been rearranged with the object of rendering the various sections more consecutive than they were.

"Insanity in Everyday Practice," by Dr. E. G. Younger, third edition (price 3s. 6d.), is another little book which has met with ready acceptance. The previous edition has even been translated into Chinese, and is being translated into Spanish. A thorough revision has been made throughout, and the section on General Paralysis has been entirely rewritten.

MEDICAL NEWS & PASS LISTS.

Memorial to the Late Dr. Wilson.

A statue in honour of Dr. Edward Adrian Wilson, one of Captain Scott's companions at the South Pole, was last week unveiled in the Cheltenham Promenade by Sir Clements Markham. Dr. Wilson was educated at Cheltenham College. The statue, in bronze, which is the work of Lady Scott, and rests on a pedestal of Portland stone, depicts Dr. Wilson in Antarctic sleighing kit. The pedestal bears the following inscription:—"He died as he lived, a brave and a true man, the best of comrades and staunchest of friends."

Damages Claimed against a Dentist.

In Bloomsbury County Court, last week, a claim for damages for disfigurement of her face was brought against Mr. C. Peyton Baly, of Harley Street, Dental Surgeon at the Great Northern Hospital, Holloway Road, by Ethel Brown, a domestic servant, of Lordship Park.

The girl said that on recovering from the gas, after having four teeth extracted at the Hospital, she felt "pins and needles" in her neck. She was about to put her hand to her face when the defendant stopped her and said, "Good gracious, I have burned this woman." It appeared that some corrosive acid had been used, and the girl now had a disfigurement which plaintiff's counsel, Mr. R. L. Willis, stated would be permanent.

Dr. Baly said that the girl was in a state of collapse, and while watching her he put his hand up to a bottle-cupboard for the smelling salts. After applying the bottle to the girl he found there was some fluid in it. He afterwards found it was the wrong bottle—acid used in the skin department—and ought not to have been in this cupboard. The bottle was the same size and colour as the smelling salts.

Medical evidence was given that with proper treatment the scar would probably be considerably improved.

Judge Bray said that in his opinion the doctor was negligent in not looking at the bottle. He gave judgment for the plaintiff, but postponed for three months the assessment of damages so as to ascertain the effect of further treatment.

A Faith-Healer Censured.

The adjourned inquest on the body of Miss Kate Addison Scott, aged 37, was concluded last week at Hounslow by Mr. Reginald Kemp. Miss Scott died after staying four days at the Miller Institute, Isleworth, kept by Mr. Orlando Miller, who described himself as a lecturer and teacher on Biblical and religious subjects, and a healer and student of psychology. He said he had no medical qualifications, but had studied medicine in America. He healed by mental, medical and mechanical means and used prayer as well. He had no medical man at his Home. Miss Scott attended his lectures, and having suffered for 15 years from paralysis, she asked him to help her to get well. He agreed, and she paid him £5 5s. a week. His process was to keep her without food for 36 hours, give her doses of salts and injections of cascara, alcohol, and scopolamine. She vomited considerably, and died before her own private medical man could see her.

Dr. L. Wilson, of Gordon Square, said he had attended Miss Scott for some time for dyspepsia. Her condition was such that scopolamine would be a dangerous drug to use. He considered that a medical man should have been called in earlier, and then her life would probably have been saved.

Dr. Christian, who made a *post-mortem* examination, said that he found on the legs marks of the use of the needle of a syringe. Scopolamine would increase the dilatation of the stomach and cause paralysis. In answer to the jury the witness said that scopolamine might assist in causing death by acting on the heart.

Dr. W. H. Willcox, analyst to the Home Office, said he made a careful test for poison in the stomach, and found minute traces of an alkaloid. It would have the same action as scopolamine or hyoscine, but he could not say if it were either.

The Coroner: What conclusion can you come to?

The Witness: I cannot say that it was a case in which scopolamine caused or accelerated death. There was not a poisonous dose in the body. The treatment was most unsuitable.

The jury returned a verdict of "Death from natural causes," and asked the Coroner to censure Mr. Miller, and, with regard to the nurse, expressed the desire that her conduct be reported to the hospital which granted her diploma.

The Coroner said he quite agreed with the rider. Addressing Mr. Miller, he said:—"You are deserving of the gravest censure for treating this woman in a very improper way. Fortunately the medical evidence is in your favour, or you might have found yourself in difficulties. It was clearly your duty to send for a doctor much sooner than you did. The only extraordinary part of this case is the evidence which it affords of the easy way in which the public are taken in by these quasi-religious faith healers."

The Royal College of Surgeons of England.

At a quarterly meeting of the Council of the Royal College of Surgeons of England, held last week, Sir W. Watson Cheyne, Bart., C.B., was elected President, and Sir Frederic Eve and Sir Anthony Bowlby Vice-Presidents of the College.

Miss Refna Mallett, Royal Free Hospital, and Mr. J. R. M. Collie, University College Hospital, were admitted members of the College. The following lecturers were elected for the ensuing collegiate year:—Hunterian Professors: Professor Arthur Keith, Messrs. Rupert Farrant, W. Sampson Handley, J. Howell Evans, Frederick C. Pybus (Newcastle-on-Tyne), and Harry Blakeway. Arris and Gale Lecturers: Messrs. F. Wood Jones and David Waterston. Erasmus Wilson Lecturer: Mr. S. G. Shattock. Arnott Demonstrator: Professor Keith. Odontological Demonstrator: Mr. J. F. Colyer.

University of Oxford.

In a Congregation held on July 11th, the following degrees were conferred:—

B.M.—A. C. Balance and A. B. Thompson, New College; E. E. Mather, Exeter; J. C. Davies, C. W. B. Littlejohn and G. P. Selby, New College.

Belfast University.

The following degrees were conferred on the 9th July:—

M.D. Degree (by Thesis).—David Finnegan, Philip

J. Gaffikin, David M'Cay (gold medal), Samuel M'Clure, William S. J. Shaw, John M'G. Williams.

M.D. Degree (by Examination).—Bruce Alexander West.

M.Ch. Degree (by Thesis).—Frederick Crooks.

M.Ch. Degree (by Examination).—Thomas S. S. Holmes (gold medal).

M.B., B.Ch., B.A.O. Degrees (With Honours.—First Class): Robert M. Beath; Second Class: Edward C. T. Emerson, Archibald Fullerton, William S. B. Hay, Edward B. C. Mayrs, Sinclair Miller, George R. B. Purce.

M.B., B.Ch. B.A.O. Degrees (Pass).—Herbert T. Chatfield, William M'M. Chesney, John Duffin, David Gaston, Margaret Gorman, Thomas Grimson, Joseph F. D. Hunter, David Jamison, William J. Lascelles, Beattie Lyons, Campbell M'N. M'Cormick, Robert N. M'Kinstry, Edward U. M'William, Edward A. Mallon, James J. Murray, Samuel E. Picken, George W. Rea, Elizabeth M. Robb, John S. Savage, Albert F. L. Shields, James Tate, John Warwick, Owen Wilson, William R. E. Wilson, Peter P. Wright.

Diploma in Public Health.—Marion B. Andrews, Norman C. Graham, William S. Haydock, William J. F. Mayne, Samuel P. Rea.

Examination Result: Faculty of Medicine:—

Theoretical Chemistry.—F. C. S. Bradbury, W. Hoey, H. Abernethy, K. Marsh, A. V. Morrison.

Practical Chemistry.—Margaret M. Merrick, W. J. Lytle, F. C. S. Bradbury, Amy C. M'Callum, K. Marsh, Elizabeth E. Young, R. W. Hanna.

Elementary Anatomy.—Amy C. M'Cullum, F. C. S. Bradbury, G. D. F. M'Fadden, Eileen Chambers, W. M. J. Lytle.

Senior Anatomy.—J. Lascelles, Annie E. E. Beattie, C. J. A. Woodside.

Practical Anatomy (Senior).—W. Napier, F. Ewart, C. J. A. Woodside, Annie E. E. Beattie, J. C. Loughridge.

Physiology.—G. J. Crawford, J. Lascelles, W. Cupples, Annie E. E. Beattie.

Practical Physiology.—Annie E. E. Beattie, J. M'Cormack, H. W. Wild, F. Hopkins.

Practical Physiology (Seniors).—A. J. Miller (special prize).

Practical Anatomy (Junior).—G. D. F. M'Fadden, T. G. Campbell, Amy C. M'Callum, T. Montgomery, A. E. Keowu.

Materia Medica.—Grace English, J. C. M'Millan, F. H. Whyte, Margaret Purse, A. C. Dickey.

Surgery.—Abraham Porter, Elizabeth S. Walker, R. L. Rea, Mary A. Gallagher.

Operative Surgery.—R. L. Rea, E. G. B. Calvert, A. Porter, R. G. Brookes, Mary A. Gallagher.

Organic Chemistry (Practical).—Kathleen M. Duffin.

Histology.— Dorothy I. Dobbin, R. G. Meyer.

Special Prizes.—G. J. Crawford, F. Hopkins, H. W. Wild.

Medicine.—E. G. B. Calvert, Elizabeth S. Walker, Abraham Porter, R. L. Rea, Mary A. Gallagher, Alexander G. M'Kee.

Midwifery.—E. G. B. Calvert, Elizabeth S. Walker, Mary A. Gallagher, R. L. Rea, T. W. E. Elliott, A. Porter, W. A. Thompson, R. G. M'Elney, Thomas Milling.

Ophthalmology.—R. L. Rea, G. B. S. Calvert, Mary A. Gallagher.

Pathology.—Elizabeth C. Kirker, William Bryars, Grace M. English.

Hygiene.—Grace M. English, D. Mitchell, W. Bryars.

Faculties of Science and Medicine:—

Experimental Physics.—Third year, Georgina Jackson; second year, Emily R. M'Milian, Elizabeth Kyle; first year, James Martin, Amy I. Woods, J. M'Robert.

Medicals.—First year, F. C. S. Bradbury, W. Hoey, F Campbell.

Mathematical Physics.—Third year, Janet S. Nicholas; second year, J. P. Martin; first year, J. M'Roberts.

Zoology (Written).—W. L. Lytle, Eileen G. Chambers, G. D. F. M'Fadden, W. S. Mayne, Helen M. F. Calwell, H. Abernethy, T. Montgomery.

Zoology (Practical).—W. L. Lytle, G. D. F. M'Fadden, Mary E. Irwin, T. Montgomery, Eileen G. Chambers, S. F. Beakey, Helen M. F. Calwell.

Botany (Theory).—T. J. Candy, W. L. Lytle, H. Abernethy, T. Montgomery, Helen M. F. Calwell, H. Macauley, F. Campbell.

Botany (Practical).—F. Campbell, F. C. S. Bradbury, G. D. F. M'Fadden, T. Montgomery, W. L. Lytle, Helen M. F. Calwell.

Practical Anatomy.—G. J. Crawford, J. Lascelles, C. J. A. Woodside.

Practical Histology.—H. W. Wild, G. J. Crawford, Olga R. I. Love, J. Lascelles, W. H. Turnbull.

Faculty of Medicine.—First Medical Examination.—Frederick C. S. Bradbury, Frederick Campbell, William Hoey, Albert V. Morrison.

Second Medical Examination.—Gerard J. Crawford, John Lascelles, Cecil J. A. Woodside (Third Scholarship), Olive M. Anderson, Annie E. E. Beattie.

Third Medical Examination.—Recommended for Scholarships.—Margaret Sloane Purce, Frederick Hamilton Whyte, William Bryars (Third Scholarship), James Clarke M'Millan (Fourth Scholarship).

Final Medical Examination.—R. M. Beath, £30; G. R. B. Purce, £30; W. S. B. Hay, £30; Sinclair Miller, £20.

Magrath Scholarship.—Sinclair Miller.

Gold Medals.—M.Ch., T. S. S. Holmes; M.D., David M'Cay.

University of Aberdeen.

At the annual graduation ceremony last week, the following Degrees in Medicine and Surgery, and the Diploma in Public Health were granted:—

Degree of Doctor of Medicine (M.D.).—Alexander G. Anderson, M.A., M.B., Ch.B., Aberdeen***; William J. Reid, M.A., B.Sc., M.B., Ch.B., Royal Infirmary, Manchester***; James R. Murray, M.B., Ch.B., 437 Great Western Road, Aberdeen**; Alexander Wilson, M.B., Ch.B.*; Douglas Craig, M.B., Ch.B.; William B. Keith, M.B.; Andrew M. R. Sinclair, M.B., C.M., 213 New King's Road; Francis W. Stnart, M.B., Ch.B., Ch.M.

*** "Highest Honours" for Thesis. ** "Honours" for Thesis.
* "Commendation" for Thesis.

Degrees of Bachelor of Medicine (M.B.) and Bachelor of Surgery (Ch.B.), with Second Class Honours.—*Neil Cantlie, *George R. Lipp.

Ordinary Degree.—Alexander G. Craib, Fergus M. Davidson, *John Dow, M.A., *David Fettes, John Foubister, M.A., B.Sc., Rudolf W. Galloway, Andrew M. Gray, Wilfred F. Hawkins, Alfred J. Ireland, Evan A. Mackenzie, *David M. Marr, James Morrison, M.A., John F. W. Sandison, Ernest Tawse, Walter B. Thomson, William Walker, *William R. Watt, James M. Whyte.

* Passed Fourth Professional Examination with "Distinction."

Diploma in Public Health.—Winniefred M. Gray, M.A., M.B., Ch.B. (Aberd.), James H. Yule, M.B., Ch.B. (Aberd.).

The Straits Settlements Gold Medal (for best Thesis for M.D. on a subject dealing with Tropical Medicine submitted 1912, 1913 or 1914) was awarded to Alexander Frank Wallace, M.D. (1913).

The John Murray Medal and Scholarship (awarded to the most Distinguished Graduate (M.B.) of 1914) was awarded to Alexander Elmslie Campbell, M.A., M.B., Ch.B., Inverness.

NOTICES TO CORRESPONDENTS, &c.

☛ Correspondents requiring a reply in this column are particularly requested to make use of a *Distinctive Signature or Initial*, and to avoid the practice of signing themselves "Reader," "Subscriber," "Old Subscriber," etc. Much confusion will be spared by attention to this rule.

SUBSCRIPTIONS.

Subscriptions may commence at any date, but the two volumes each year begin on January 1st and July 1st respectively. Terms per annum, 21s; post free at home or abroad.

Foreign subscriptions must be paid in advance. For India, Messrs. Thacker, Spink and Co., of Calcutta, are our officially-appointed agents. Indian subscriptions are Rs. 15.12. Messrs.

Dawson and Sons are our special agents for Canada. For South Africa, The Record Publishing Co., Cape Town. Messrs. Geo. Robertson and Co., of Sydney and Melbourne, are our special agents for Australia.

ADVERTISEMENTS.

For One Insertion:—Whole Page, £5; Half Page, £2 10s.; Quarter Page, £1 5s.; One-eighth, 12s. 6d.

The following reductions are made for a series:—Whole Page, 13 insertions at £3 10s.; 26 at £3 3s.; 52 insertions at £3, and pro rata for smaller spaces.

Small announcements of Practices, Assistancies, Vacancies, Books, etc.—Seven lines or under (70 words), 4s. 6d. per insertion: 6d. per line beyond.

Contributors are kindly requested to send their communications, if resident in England or the Colonies, to the Editor at the London office, 8, Henrietta Street, Strand; if resident in Ireland to the Dublin office, in order to save time in reforwarding from office to office. When sending subscriptions the same rule applies as to office; these should be addressed to the Publisher.

Original Articles on Letters intended for publication should be written on one side of the paper only and must be authenticated with the name and address of the writer, not necessarily for publication, but as evidence of identity.

Reprints.—Reprints of articles appearing in this Journal can be had at a reduced rate, providing authors give notice to the publisher or printer before the type has been distributed. This should be done when returning proofs.

Dr. J. A. (Battersea) is thanked for his note; the delay will cause us no inconvenience.

A MISPRINT.

A correspondent has called attention to a misprint on page 30 of our last issue in the paragraph headed "Germ Carriers." The paragraph in question reads: "The germ of diphtheria is frequently carried in the faces of healthy individuals." Our correspondent points out that the word "faces" should obviously have been "fæces." As a matter of fact, the writer meant "fauces." The compositor presented it as "fances," our medical reader altered it to "fauces," and the compositor presented the final form of "faces." The printer's error, therefore, in this instance presents a more than usually complicated tangle.

H. A. Fellowes (Liverpool).—The drug referred to has no special characteristic feature over similar preparations. It is merely a cute way of advertising it in the newspapers as if it were an Editorial pronouncement.

Dr. J. B. Murphy (Chicago) informs us that the title of his paper to be read at the forthcoming Clinical Congress of Surgeons should be "Arthroplasty and Bone Transplantation: Its Limitations and Technique," not "Arthrodesis, etc.," as given in a recent issue of this journal.

MEDICAL MEN AND LIGHT CARS.

A large number of medical men are under the impression that only a large and high-powered motor-car is any practical good for their daily rounds. In a special "Doctors' Issue" of the *Light Car* actual experiences are given of many medical practitioners of the working of small and light cars, from a perusal of which it will be seen that it is by no means necessary to invest in a 30 h.p. limousine in order to enjoy to the full the pleasures and profits of motoring. We can recommend this special number, dated July 8th, 1914, to our readers.

Dr. W. S. T. (London, S.W.).—Such notices in the lay Press, which are becoming increasingly common, are to be deprecated, but it may be noted that the address of the medical man is not given. The attention of the Ethical Committee of the British Medical Association might well be called to the matter, for some authoritative ruling on the point seems to be urgently called for.

P. R. (Hastings).—We do not think there is sufficient evidence in the case to which you refer to give rise to a charge of malpraxis. So long as a medical man can show that he has honestly done the best for his patient he can hardly be convicted of culpable negligence.

Vacancies.

Hulme Dispensary, Dale Street, Stretford Road, Manchester.—House Surgeon. Salary £180 per annum, with apartments, attendance, coal, and gas. Applications to Honorary Medical Secretary. (See advt.)

Royal Albert Hospital, Devonport.—House Surgeon. Salary £150 per annum, with board and laundry. Applications to the Chairman of the Selection Committee, Royal Albert Hospital, Devonport.

Kent County Asylum, Maidstone.—Fourth Assistant Medical Officer. Salary £250 per annum, with furnished quarters, board, attendance, coals, gas, garden produce, milk, and washing. Applications to the Medical Superintendent, Asylum, Maidstone.

West Suffolk General Hospital, Bury St. Edmunds.—Resident Medical Officer. Salary £120 per annum, with board, lodging, and laundry. Applications to the Secretary.

City Fever Hospital, Little Bromwich, Birmingham.—Male Assistant Medical Officer. Salary £200 per annum, with board, residence, and laundry. Applications to the Medical Superintendent.

Birmingham General Dispensary.—Resident Medical Officer. Salary £240 per annum, with furnished apartments, fire, light, and attendance. Applications to Ernest W. Forrest, 32 Union Street.

West Hartlepool: Cameron Hospital.—House Surgeon. Salary £150 per annum, with board and rooms. Applications to J. G. Taylor, Secretary.

Liverpool School of Tropical Medicine.—Research Assistant at the Runcorn Research Laboratory. Salary £150 per annum. Applications to the Director at Runcorn.

Winsley Sanatorium for Consumption.—Assistant Resident Medical Officer. Salary £150 per annum, with board, residence, and laundry. Applications to Frederic Jones, Secretary, Winsley Sanatorium, near Bath.

Certifying Factory Surgeons.—The Chief Inspector of Factories announces the following vacant appointments:—Malton (Yorks), Runcorn (Chester), Shardlow (Derby).

Appointments.

Beddard, A. P., M.D.Oxon., F.R.C.P.Lond., Physician to Guy's Hospital.

Cope, V. Z., M.D., M.S.Lond., Surgeon in Charge of the Orthopædic Department at St. Mary's Hospital.

Howell, James B., D.P.H., M.R.C.S., L.R.C.P.Lond., Medical Officer of Health for Hammersmith.

Jones, William E., M.R.C.S., L.R.C.P.Lond., Honorary Anæsthetist to the Blackburn and East Lancashire Royal Infirmary.

Lees, K. A., M.B., B.C.Camb., F.R.C.S.Eng., Demonstrator of Anatomy to St. Mary's Hospital Medical School.

MacEnricht, D. J. Morrison, M.B., B.Ch., B.A.O.N.U.I., House Surgeon at Swansea General and Eye Hospital.

Pinchin, A. J., Scott, M.D.Lond., M.R.C.S., Physician to Out-patients at the Hampstead General and North-West London Hospital.

Births.

Ashworth.—On July 11th, at Vigne House, Cliftonville, Margate, Kate, the wife of J. Henry Ashworth, M.D.

Darwall Smith.—On July 11th, at 8 Grosvenor Street, W., to Dr. and Mrs. Darwall Smith—a son.

Page.—On July 10th, at 79 Old Market Street, Bristol, the wife of Lionel Page, M.R.C.S.Eng., L.R.C.P.Lond., of a son.

Pritchard—On July 10th, at Beechwood, Hastings, the wife of Dr. W. Clowes Pritchard, of a son.

Sanderson.—On July 7th, at Coventry House, Hornchurch, the wife of Dr. Arthur F. Sanderson, of a son.

Williams.—On July 7th, at 102, Lansdowne Road, Clapham, the wife of Cyril Williams, M.R.C.S., L.R.C.P., of a daughter.

Marriages.

Bramhall—Free.—On July 11th, at St. Stephen's, Gloucester Road, S.W., Captain Charles Bramhall, R.A.M.C., youngest son of the late Captain Bramhall, to Betty Marjory, daughter of Colonel and Mrs. Free, of 44 Queen's Gate Terrace, S.W.

De Brent—Daws.—On July 7th, at St. George's Church, Catford, Harold John De Brent, M.R.C.S., L.R.C.P., to Elsie, third daughter of J. E. Daws, Esq., of Bournemouth

Hicks—James.—On July 8th, at Holy Trinity, South Hampstead, John Athelstan Braxton Hicks, M.D., M.R.C.P., only son of the late A. Braxton Hicks, Barrister-at-Law, H.M. Coroner, and Mrs. A. Braxton Hicks, of 3a Perham Road, W., to Adeleine Stephanie, daughter of the late William Lamprey James, Esq., of Exeter, and Mrs. Hall, of Westcliff-on-Sea.

Mellanby—Tweedy.—On July 7th, at Frognal Presbyterian Church, Edward Mellanby, M.A., M.B.Cantab., to May Tweedy.

Robertson—Waterston.—On July 4th, at 10 Claremont Crescent, Edinburgh, Robert Kinnear Robertson, B.A., M.B., Ch.B., 476 Ecclesall Road, Sheffield, only son of James Robertson, 4 Mansfield Place, Perth, to Mary Waterston, daughter of George Waterston, 10 Claremont Crescent.

Traylen—Kerss.—On July 11th, at St. Peter's Church, Belsize Park, Hampstead, Charles Leonard Traylen, M.R.C.S., L.R.C.P., second son of the late J. C. Traylen, A.R.I.B.A., of Stamford, Lincolnshire, to Jane Douglas Kerss, daughter of J. J. Douglas Kerss, Esq., and Mrs. Kerss, of 3 Crossfield Road, Hampstead.

Wright—Lee.—On July 7th, at Crowthorne, Berks, Roger Wright, M.B., B.S., son of the late William Wright, of Clifton, to Margaret, daughter of Thomes Lee, of Messingham, Lincs.

Deaths.

Bell.—On July 11th, at Uppingham, Thomas Bell, M.R.C.S., L.R.C.P., J.P. for the County of Rutland, aged 77.

Mackinnon.—On July 11th, at his residence, 18 Grassington Road, Eastbourne, Charles Mackinnon, Brigade Surgeon, A.M.D.

Pitt.—On July 10th, at Great Somerford, Chippenham, Charles Wightwick Pitt, M.R.C.S., L.S.A., aged 71 years, formerly of Malmesbury.

Pugh.—On July 10th, at 49 Lissenden Mansions, N.W., Margaret Eleanor, the beloved wife of J. W. Pugh, M.D. late of Brighton.

HULME DISPENSARY.
DALE STREET, STRETFORD ROAD, MANCHESTER.

WANTED a HOUSE SURGEON duly registered and fully qualified. Salary £180 per annum. Annual increase £10 to £200, with apartments, coal and gas. Applications, with testimonials, at once, to Honorary Medical Secretary.

THE MEDICAL PRESS AND CIRCULAR.

"SALUS POPULI SUPREMA LEX"

VOL. CXLIX. WEDNESDAY, JULY 22, 1914. No. 4.

NOTES AND COMMENTS.

Suggested Hospital Equerry for the King.

THE kindly interest taken by the King and Queen in the hospitals of the United Kingdom is a matter of general satisfaction. The fact that their Majesties visit a great many institutions of the kind has been followed by the grotesque suggestion that an extra equerry should be added to their staff for the purpose of conveying information upon all special and collateral details of interest. If this suggestion is to be seriously considered, it will be well at the same time to discuss the rival claims of a hundred and one other organisations. If the medical charities are to have their special official mouthpiece and interpreter why should not a similar honour be bestowed upon the Royal Academy, the medical schools, the golf clubs, the Sunday League, the Horse Show and other amusements, the Ascot and other races, the cricketers, the tennis players and a great many other social activities. One fatal objection is that an enormous power of praise or blame would be placed in the hands of the equerry—who, however able, could hardly hope to probe the inner truths of the innumerable charities of the United Kingdom. But perhaps it is not proposed that any but the favoured few hospitals should ever be brought to Royal notice—according to the precedent of the Metropolitan Sunday and King Edward Funds. Were ever so fantastic a Jack-in-office brought into being, he would straightway become an engrossing centre of attraction to the scores of thousands of persons whose interests are more or less vitally connected with this or that particular medical charity.

King George and the Special Hospitals.

IT is notorious that the clique which practically controls the policy of the Metropolitan Hospital and King Edward Funds deliberately excludes the bulk of the special hospitals from participating in the money subscribed by a generous public for the benefit of the medical charities. It is hardly surprising, therefore, to find the suggestion of a special hospital inquiry coming from a quarter that has always sustained the unjust withholding of grants from the small and the special hospital. It has always been a matter of surprise that the King, who has the courage of his opinions in such matters, should lend the sanction of his name to a system which penalises and starves the small medical charities of London. Why should not the small hospitals have adequate representation on the King Edward's Fund? Why should they not have a representative of recognised ability and fairness upon the Distribution Committee of the King Edward's Fund? Is there any adequate reason why a matter of public importance, affecting so closely the well-being of the public and the progress of medical education, should not be the subject of a formal inquiry by the King's Fund?

Forcible Feeding Protests.

A DEPUTATION of medical men last week waited upon the Home Secretary to present their views upon forcible feeding of prisoners. As they insisted that Press reporters should be present at the interview, and Mr. McKenna refused to admit them, the matter fell through. They have since sent us the views of certain members of the deputation. The first thing that strikes one on reading these documents is the fact that in nearly every case the question is begged by calling the process "torture." It is urged that medical men should protest against the degradation inflicted upon members of their profession who are compelled to act as "torturers and executioners." Every step of punitive administration throws the onus of application upon someone or other. Unless someone is willing to undertake unpleasant duties of the kind, the whole system of criminal law administration must be abandoned. Perhaps that is what the deputation had in mind. If the Suffragettes be permitted to starve themselves to death in prison, why should not all prisoners of all sorts be allowed to make a bid for liberty on similar terms? Not one of the deputation have suggested an alternative to forcible feeding that fits in with the imprisonment which society has so far found necessary for the preservation of sound law and order.

Why "Torture"?

WHY call it "torture"? Sir Victor Horsley says it is not medical treatment to preserve life and health. If there be not some quibble in that assertion, we fail to see how life is not preserved by forcible feeding of women, who otherwise would starve to death by abstention from food. This sort of loose statement simply confuses the issue. In another sentence Sir Victor says: "It is clear that the statement made from time to time, chiefly by anonymous medical men, that prison forcible feeding is the same as that of hospitals and asylums is untrue." In what respect does it differ? Similar food, similar apparatus, similar procedures by medical officers and attendants are surely followed in both cases, whether the patients are assenting or refractory! If asylum patients refuse food they are fed perforce, in order to keep them alive. If prisoners refuse food to the endangering of their lives, a doubt as to their sanity is at once raised—but what is the governor of the prison to do with sulky criminals of this kind? Is he to let them die? Is the State to acquiesce in their suicide? Members of the deputation must again be asked to suggest an alternative. Are all prisoners who refrain from food to be released? Is suicide to be explicitly sanctioned by the State, as it is in certain Eastern countries? Instead of pelting the officers of justice, lay and medical, with volleys of opprobrious epithets, would it not be well for these gentlemen to discuss calmly and philosophically all sides of the tangled social problem that has been raised by a band of women whose bravery one admires while one cannot help lamenting their folly? The suggestion of granting a request demanded under such threats is absolutely repugnant to the instincts of our countrymen. Full female enfranchisement must follow sooner or later, but the question of the forcible feeding of prisoners will not be solved by its attainment. Let the deputation try again.

A National Council and Venereal Disease.

Public opinion with regard to the need for instituting an organised campaign against venereal diseases appears to be growing apace. As a direct outcome of the resolution passed at the International Congress of Medicine held in London last year, was the appointment of the present Royal Commission. This body has already held a great number of sittings, and the expert evidence given thereat has been published from time to time in abstract in our columns. We learn that it has now been decided to form a National Council for Combating Venereal Diseases as the result of a number of private conferences presided over by Sir Thomas Barlow, K.C.V.O., and which may be regarded as the outcome of the efforts spread over two years by a committee appointed by the Royal Society of Medicine and the Eugenics Education Society. It is understood that representatives of the medical profession and of the general public will compose the *personnel* of the new Council, and that the names of those so serving will be announced later. The suggestion that popular education is probably the most effective method for combating the ravages of venereal disease will be received with favour in many quarters, though it must be admitted that the particular way of imparting instruction will require very careful deliberation. Further details respecting the composition and aims of the new Council will be awaited with much interest by the medical profession.

The Scientific Scavenger.

One of the obvious needs of present-day sanitation is the need of more scientific scavenging. The highest achievements in that direction consist in the limited use of dust-tight ash-bins, of covered dust-carts, and of flushing down the streets of certain towns at night. The ordinary process of brushing the roads on a dry day sends up clouds of bacteria-laden dust which enters our houses and poisons our food. Why should not the road be sprinkled with some antiseptic fluid, or even with plain water, before the brush is applied? The sagacious housewife has long ago recognised the virtues of spent tea-leaves or damp sawdust in preventing the cloud of dust that would otherwise register the activities of her busy broom. So far as the scavenging of districts is concerned, the chief rock ahead lies in the parsimony of our public health authorities, whose main object is to keep down expenses. Otherwise it would not require a Michael Faraday or a Huxley amongst medical officers of health to devise a sound, practical scheme for scavenging in all its branches upon a scientific basis. Will sanitary authorities kindly note that from an economic point of view money expended in antiseptic and generally improved refuse removal would be saved many times over in diminished sickness, especially as many sick persons have to be maintained at the direct expense of the public. The application of the vacuum principle, now employed so successfully upon the domestic scale, might, perhaps, be found practicable in removing dust and refuse in a dry state from our public highways.

Sir Jonathan Hutchinson's Museum.

We are glad to learn that the appeal on behalf of this excellent institution, to which we referred last week (page 56), has been so far successful that among the subscriptions which it has called forth there has been one of £500 from a well-wisher who does not wish his name to appear, and who expresses the hope that his example may be promptly followed by other sympathisers. We remarked in our note of the 15th inst. that "there must be many medical men who would willingly contribute to the preservation and permanent endowment of the Museum out of personal admiration and gratitude to its founder." It appears, however, that the contributions from medical men have been but few. It is surely not too much to hope that some of Sir Jonathan's contemporaries and disciples may yet come forward to aid in the preservation of the Museum which he created, and which would be so fitting a memorial of his genius and philanthropy.

LEADING ARTICLES.

DISABLEMENT BENEFIT UNDER THE INSURANCE ACT.

On the 20th of the present month the last great branch of the National Insurance Act came into operation. It forms an important pillar—if not the corner-stone—in Mr. Lloyd George's essay in public health legislation. Before Monday last the insured worker was entitled to free medical attendance, drugs, and medical appliances; to ten shillings a week for twenty-six weeks when ill; to sanatorium benefit when judged advisable, and to maternity benefit. Henceforth five shillings a week can be claimed up to the age of seventy in the event of permanent incapacity. Those who are fond of quoting the practice of Germany in national insurance will doubtless remark that there the worker becomes entitled to the permanent pension provided he is unable to earn more than one-third of the usual wages. At first sight the German qualification appears far more advantageous to the insured than our own. As a matter of fact, however, the five shillings, when granted to the British pensioner, is not affected by any future income that may accrue, and it is expressly provided that it must not be taken into account by the guardians if an application be made by the recipient for Poor Law relief. The German basis, anyway, was not found to be actuarially possible in the case of the population of the United Kingdom. The latter this week became entitled to disability benefit, temporary and permanent, provided they have paid 104 contributions, corresponding with the number of weeks that the Act has been in operation. There appears to be some amount of confusion in the popular mind as to the scope of disablement relief. For ordinary sickness benefit the insured sick or disabled person is entitled to ten shillings a week for a period of twenty-six weeks, and at the end of that time, if still incapacitated, that person, provided 104 contributions have been made, receives five shillings a week so long as disablement continues up to the age of seventy, when the old-age pension supervenes. The aggregate indirect bearing of this State provision for the sick poor of the United Kingdom is clearly of great value. It is useless to give medical advice and physic to persons who are physically and mentally handicapped by lack of the ordinary means of subsistence. Good environment is obviously essential to the attainment of a reasonable standard of national health, but the lapse of time alone can demonstrate the success of legislative measures for its attainment. To take a single instance of the value of disablement benefit, let us turn to the case of the domestic servant. There has been no greater outcry against the Act than that by the critics who asserted that good employers provided for their sick servants. Apart from the fact that all masters and mistresses do not satisfy the qualification of goodness, it may be safely assumed that few of them would be willing or able to pension off permanently disabled servants for life. Now that the Act is come fully into operation, it is to be hoped that Mr. Lloyd George will give his serious attention to the hardships inflicted upon certain classes of the medical profession. There can be little question that a large amount of the medical benefit that should be paid for under the Act is obtained free from the special hospitals, whose practice and whose incomes have nevertheless been depleted by the operations of the Insurance Act. The specialist class of the United Kingdom have for many years worked conscientiously and advanced medical science to an extent that is in inverse proportion to their material prosperity. Here is the opportunity of the Chancellor of the Exchequer, who will further the interests of the insured by providing them with special skill that is not available under the panel system. At the same time, by subsidising the special hospitals of the United Kingdom and granting paid official appointments to all legitimate specialists, he will at one stroke take a long step towards the endowment of medical science, the lack of which is a standing reproach to a nation which prides itself upon its commonsense and businesslike methods.

RECURRENT ENTERITIS IN A LONDON POOR-LAW INFIRMARY.

The news that five cases of enteritis have occurred amongst the children at the Southwark Infirmary calls attention to a state of matters that is nothing short of a scandal. Some of our readers will doubtless recall the fact that on a previous fatal outbreak of a similar nature it was found that a number of railway trucks containing refuse from the neighbouring district of Camberwell were habitually shunted and left standing for a long time not far from the infirmary. The inevitable conclusion was that the enteritis was connected with infection conveyed by flies from the trucks to the infirmary. On representation being made to the Camberwell Borough Council that body scouted the suggestion, and actually produced a medical officer's report to the effect that he had inspected the siding and had seen no dust blowing from the refuse. As well might one expect to see the bacteria of small-pox or of diphtheria being blown about the street. The fact that it would tax the resources of a skilled microscopist armed with a powerful microscope to demonstrate on the body of a fly even the common identifiable pathogenic bacteria formed no part of the report. It was good enough for Camberwell as it stood to use against the innuendoes of Southwark. Later the Local Government Board intervened, and by means of inspectors and correspondence endeavoured to reduce Camberwell to reason. The Local Government Board, however, has failed in its object, for the Camberwell rubbish is still lodged near the Southwark Infirmary, in which enteritis is a recurrent malady. This state of affairs constitutes a grim satire upon our vaunted sanitary administration. The governing body of a crowded London district is unable to protect its Poor-law Infirmary from a dangerous nuisance inflicted by the selfish recklessness of a neighbouring Council. The Local Government Board, the central authority appealed to for protection, has been simply ignored by the offending authority. As Southwark cannot secure Government protection it may be well for them to try what redress may be obtainable through the law courts, although naturally its Council would be unwilling to saddle its ratepayers with the burden of costly litigation until other means of abating so gross a public danger had been exhausted.

CURRENT TOPICS.

Diagnostic Dangers.

One of the chief principles in medical practice is to do no harm. We may do good. We hope to, but we must be as sure as experience and statistics can make us that we do not leave things worse than they were before our help was sought. When sick people summon us they expect us to do something. They can do nothing perfectly well themselves, and, if that negative therapeusis is unproductive of results, they turn to us for guidance, and are liable to be disappointed if we do nothing either. So we are tempted to interfere. Usually our interference is justified both theoretically and by results. Sometimes it is not. For instance, pyelography is becoming popular. In cases of suspected hydronephrosis we can inject a solution of collargol and take a radiograph. We then get a very accurate picture of the condition we are called on to deal with. E. von Hofmann, in "Folia Urologica," lately reported three cases that show quite clearly that such a proceeding is not unaccompanied with danger. In two of these the renal tubules were found after operation to be stained with the fluid, while in the third case the collargol was found even in the glomeruli. In this case the patient developed general peritonitis four days after the injection and died. The autopsy showed that the hydronephrotic sac had ruptured, and that the contents had escaped through the foramen of Winslow. Such cases illustrate the danger of pumping fluid into a diseased kidney when we have no means of knowing either the amount of pressure we are using or the amount of pressure the tissues will stand. Some of our alleged scientific methods are really contemptible in their rule of thumb regulation, and the sooner they are given up the better. When we have made an accurate diagnosis and know exactly what we have to deal with, a calculated element of risk may be justified; but to use dangerous means, whose only *raison d'être* is our ignorance, is a thing we had better leave strictly alone.

A New Treatment of Pemphigus.

The treatment of chronic pemphigus still constitutes a clinical problem for which a satisfactory solution yet remains to be found. The bacteriology of this affection is not constant, for several different organisms have been found, mostly of a coccal nature. Hence the preparation of a vaccine has not been attended with much success. A new method of treatment, recorded in the *Dermatologische Wochenschrift*, has been outlined by Drs. T. Holobut and J. T. Lenartowicz, of Lemberg, which consists of the subcutaneous injection of the contents of the bullæ themselves, duly sterilised by heating to 58° C. for half an hour in a water bath. After this period plate cultures are taken, and if no colonies of coccal organisms are found the serous fluid is stored in sterilised flasks, with the addition of 0.5 per cent. of carbolic acid, when it is ready for use as a sort of "vaccine." An account is given of two patients, boys of eight and twelve respectively, who had been treated for chronic pemphigus for long periods by various remedies without success. Injections of 1 c.c. of the contents of their own bullæ were made once or twice a week, the younger patient receiving six, and the older one twelve injections hypodermically. In both cases the results were excellent, no further outbreak of blisters being observed, while the general health was benefited at the same time. Cases of pemphigus have been recorded which have been benefited by auto-sero-therapy, but the method described above appears to be so simple that it is worthy of trial by dermatologists and practitioners generally.

The Abuse of Accuracy.

Sensationalism governs science no less than anything else. True we have many good men who work in secret, and whose virtue is its own reward. They are appreciated by the few and their work remains caviare to the general. But the man who wants to achieve results—who wants at least to have the credit he deserves—has to exaggerate. Our omnipotent transport union, our only means of communication with the mass of our fellow men, is the Press, and the Press takes no notice of anything beyond incidents, unless it is hit on the head by a metaphorical meteorite. Exaggeration is our only hope for publicity. If we want the world to know that we have discovered that two and two make four, we have to announce with two-column headlines and leaded "English" that they make five—or, better still, seventeen. Then we attract attention, and by subtraction of the trimmings we are left with a residue of seed sown—perhaps in lignity, but, at any rate, sown. The announcement that the Sanitary Institute Congress has met at Blackpool does not suggest romance. But one of the speakers has stirred the consciousness of Fleet Street. He has banned earthenware and china cups and saucers and glass tumblers and even pewter pots. Towels and napkins of gleaming napery are anathema to him. Paper is the only ware. Cade's condemnation "thou hast built a paper-mill" stands no more. We are to have cups and towels that can be used once and once only. They cannot be infected. They are perfect theoretically; practically they are hopeless. The fantastic frailty of paper pots and the fluffy disintegration of tissue towels will never catch on. They are too uncomfortable, and that is what the man in the street will never stand. Specialism means lost perspective. If we want to persuade the people we must see with the people's eye. They see nothing but fantastic faddism in such proposals, and in these days of democratic divinity we dare not say that the people are wrong.

Manners.

We have all seen small books that tell us the technique of good behaviour. If we have an appreciation for unconscious humour we can extract a good deal of amusement from them. To the connoisseur the book on etiquette affords the extreme of esoteric enjoyment, probably due to a feeling of supreme superiority that it should be possible for people to be told not to do such undreamable things as those which "Lady Camilla" warns us against. Yet etiquette is as old as human progress. Since it became possible for a man to leave the sphere of life that he was born in there must have been new ways for him to learn. Manners may not make man, but man assuredly makes manners. Behaviour ebbs and flows like a tide. The jokes of one generation are the obscenities of the next, and ultra-refinement sends its successors back to a fashionable rudeness. The *Canadian Journal of Medicine and Surgery* for this month prints some extracts from an eighteenth century work on table manners that are not a little enlightening. A certain amount of fortitude tempered with discretion was apparently necessary. "If, unfortunately, you should burn yourself when taking soup, you must bear it patiently and not show it: but if, as occasionally happens, the pain is unbearable, you should, before the company perceive what you are about to do, take you plate in one hand, lift it to your mouth, and then, while covering yourself with the other hand, replace what is in your mouth on the plate, and hand it quickly to the lackey behind your chair. Civility demands that you should act politely: but you are not required to commit suicide." Nothing could be better put, and the wisdom is obvious. Again, "After a meal do not pick your teeth with the knife or fork; do not rinse your mouth with water. To see a gentleman expectorating water might give some delicate people a touch of the qualms." We never knew before what "the qualms" were, but we quite understand anyone's feelings on observing such a lapse as our author mentions. We may exclaim with Smee, "O tempora! O mores! O cui bono, cui?"

Sanitary Authorities and Epidemic Diarrhœa.

A circular letter has recently been addressed to local sanitary authorities by the Local Government Board calling attention to the importance of taking all practical measures for the prevention of epidemic diarrhœa and other infectious diseases of infants, and of promoting hygienic conditions in the feeding of infants. The Board desire to emphasise the value of systematic visitation of the homes of infants under the direction of the Medical Officer of Health with a view to the removal of conditions in and about their dwellings which facilitate the spread of infectious and other diseases. It is pointed out that the records of notification of births during the previous months will enable several visits to be made to the homes where they are most likely to be useful, especially in the case of infants from three to twelve months old. The assistance of voluntary visitors might be enlisted in this work, so that co-ordination with any voluntary institution for the welfare of infants in the district might be secured. The importance of domestic cleanliness is rightly insisted upon, particularly in regard to the preparation and storage of food. At the same time, insanitary conditions outside the house, especially any accumulation of refuse in the neighbourhood of dwellings, should receive prompt attention from the local Council. Fresh water-closets with flushing cisterns should be substituted for existing closets on the conservancy system, and provided in all new buildings. The distribution of suitable leaflets dealing with domestic cleanliness and the destruction of refuse and flies is a valuable adjunct to house-to-house visitation, while simple instruction on these matters should never be omitted in baby clinics, schools for mothers, infant consultations, and similar agencies.

The Prevention of Hydatid Disease.

In countries where hydatid infection is widespread the question of prophylaxis becomes one of great importance, especially when sheep-raising is one of the chief industries concerned. A strong plea was put forward at the last Intercolonial Medical Congress of Australasia, held at Auckland, by Professor L. E. Barnett, F.R.C.S. (*a*), for a more vigorous attack against hydatid disease in New Zealand, for although the Government, through their Departments of Public Health and Agriculture, have done something to cope with the evil, much yet remains to be accomplished. So far, it appears that the public in New Zealand have been enlightened as to the nature and prevention of hydatid disease entirely through the individual efforts of medical practitioners. Professor Barnett has been most energetic in his attempts to enlist the interest of the public and also of health authorities in the subject, and he has outlined a scheme of prophylaxis commencing with a brief account of the life history of the tænia echinococcus and ending with four precise "don'ts," with regard to the feeding of dogs on raw offal, the drinking of unboiled or unfiltered water that has been exposed to contamination by dogs, the eating of watercress, celery, lettuce, or other uncooked vegetables, unless special care be taken to ensure their cleanliness, and the allowing of dogs to lick hands, faces, plates or dishes. Furthermore, it is suggested that authorities should adopt means to prevent the feeding of dogs on raw offal, to kill off useless dogs, and to provide the owner of every registered dog with printed information respecting hydatid disease as well as for its cure. Additional publicity for these facts might also be furnished through the agency of posters and through the medium of the weekly newspapers. Considering the ravages of echinococcal disease when once it has obtained a foothold in the human body, every possible step should be taken towards the prevention of infection.

PERSONAL.

Dr. Thomas John Jehu, M.A., M.D., F.R.S.E., F.G.S., of the University of St. Andrews, has been appointed Regius Professor of Geology and Mineralogy in the University of Edinburgh, in the place of Professor James Geikie, who has resigned.

Staff-Surgeon Frederick Francis Mahon has been promoted to the rank of Fleet-Surgeon in His Majesty's Fleet.

Dr. Wilfred Harris, M.D., B.C.Cantab., F.R.C.P. Lond., has been appointed Physician to the Royal Westminster Ophthalmic Hospital.

Mr. Gerald E. Stanley, M.S., F.R.C.S., has been appointed Assistant Surgeon at the Dreadnought Hospital (Seamen's Hospital Society).

Dr. John Parlane Kinloch, M.D.Glas., D.P.H. Cantab., has been appointed to the new Lectureship in Public Health in the University of Aberdeen.

Dr. Frederick Taylor, M.D., F.R.C.P., Consulting Physician to Guy's Hospital, has been elected President of the Royal Society of Medicine for the ensuing year.

Dr. William Louis Rodman, Professor of Surgery in the Medico-Chirurgical College, Philadelphia, has been elected President of the American Medical Association.

Sir John Tweedy, F.R.C.S., late President Royal College of Surgeons of England, has been elected President of the Medical Defence Union, *vice* Dr. Edgar Barnes, retired.

Dr. J. T. Maclachlan will preside at the annual meeting of the Caledonian Medical Society to be held on Friday, July 24th, at 3 p.m., in the Hall of the Royal Faculty of Physicians and Surgeons, Glasgow.

Mr. Lynn Thomas, C.B., on giving up private practice as a Surgeon at Cardiff, has presented to the King Edward VII. Hospital in that city his local private hospital for paying patients, valued at £4,000.

Mr. T. B. Johnston, M.B., Ch.B.Edin., Lecturer on Anatomy in the University of Edinburgh, has been appointed to the newly-created post of Lecturer and Demonstrator in Anatomy at University College, London.

A portrait of the late Dr. William Berry, for many years Midical Officer of Health for Wigan, has been presented by public subscription to the Wigan Infirmary, of which institution he was for some time Chairman.

Mr. Hugh Stott, M.R.C.S., L.R.C.P., of Lewes, Medical Officer of Health to the East Sussex combined districts, has been placed on the Commission of the Peace for the county of Sussex.

A presentation was made the other day to Dr. J. Finlay Macdonald, from the Health Department of the Auckland Rural District Council, upon his taking up the medical officership for the South-East Essex Combined Sanitary District.

Mr. E. Fitzgerald Frazer, F.R.C.S.I., of Brighton, was the recipient the other day of a suitable presentation from the local division of the Sons of Temperance in commemoration of his marriage and in recognition of his many years' service as Medical Officer.

Sir James Porter, K.C.B., late Medical Director-General, Royal Navy, will preside at the luncheon to be given in honour of Sir Alexander Ogston, K.C.V.O., by his former House Surgeons and Dressers on Thursday, July 30th, at 1.30 p.m., at the Grand Hotel, Aberdeen.

A presentation of a silver rosebowl was made the other day to Mr. Frederick Gordon Brown, M.R.C.S., on behalf of his fellow officers of the City of London Union as a mark of their affection and esteem on his retirement from the post of District Medical Officer, after serving the citizens of London for a period approaching fifty-two years.

(*a*) *New Zealand Med. Journ.*, No. 51, 1914.

CLINICAL LECTURE

ON

SOME FURTHER THERAPEUTIC POINTS.—III.

By HERBERT FRENCH, M.A., M.D.Oxon., F.R.C.P.Lond.,

Physician to Guy's Hospital.

(Concluded from page 62.)

Next let me refer to

The Value of Emetine Hydrobromide in the Treatment of Amœbic Dysentery and of Amœbic Abscess of the Liver.

It is to Major Rogers, of the Indian Medical Service, that we owe the discovery of the fact that the most important ingredient of ipecacuanha in the treatment of dysentery is precisely that which in the purified form of the drug is thrown away because it produces so much vomiting. It is the emetine of ipecacuanha which is the essential factor in the cure of dysentery by this drug, and Rogers made the still more important discovery that the hydrobromide and the hydrochloride salts of emetine can be given hypodermically with rapidly curative results, both as regards the dysentery itself and its complications; whilst, when so given, it does not cause the vomiting, etc., which crude ipecacuanha is so apt to produce. The drug is now obtainable in the form of little glass bulbs each containing ½-grain of emetine hydrobromide in sterile solution ready for injection, whilst the hydrochloride is supplied in the form of tablets, which can be dissolved in sterile water and thus injected. One does not, of course, meet with amœbic dysentery or any of its complications every day in this country, but in almost every practice a case of the kind turns up, the disease contracted in the tropics, either having persisted until the patient returns home, or else recurring in this country after an interval of apparent cure. In several hospital cases of late and in one or two seen in consultation the curative effects of emetine hydrobromide have been little short of marvellous. In one such patient there had been continuous pyrexia for over two months, the bowels were moved four or five times a day, sometimes with blood, sometimes without; there was pain and tenderness over the liver, and there was the dome-shaped dulness at the right base, together with a friction rub here and other signs pointing to the existence of hepatic abscess. Quinine, and other remedies, had been tried without any benefit at all, emetine hydrobromide was given hypodermically by Dr. Lacey, of Woolwich, and within a fortnight the temperature had come down to normal, the hepatic signs had almost disappeared, the diarrhœa had ceased, and the patient made a rapid and complete recovery without any operation being done. One can give ½-grain of the emetine hydrobromide three times a day, but, in many cases, a single dose per diem is sufficient; at any rate, it is wise to start with one dose a day, increasing this if circumstances indicate the need to do so; it does not seem to produce any untoward effects.

It is particularly in the amœbic form of dysentery and in association with the amœbic abscesses in the liver that may follow such dysentery that the emetine hydrobromide does most good, but it has also been tried in the bacillary form of the disease, and one would like to test its effects in those very difficult cases which occur in this country—allied to dysentery, but due to an organism as yet unidentified—namely, English ulcerative colitis. I have not yet had an opportunity of trying it in the latter to any great extent, but perhaps some of you may be able to do so.

The Value of External Heat to Babies Who are Ill

can hardly be exaggerated. In these days of open windows and open-air treatment, so very important to adults, there is a considerable tendency to think that babies need identical treatment in this respect. This may be true of healthy babies, infants and young children, but it certainly does not apply to infants who are sick. Let me try and emphasise this by pointing out that if one were to cool down the external tissues of an elephant, so that they were chilled to a depth of two inches all round the animal it would be some time before this external cold would have any direct influence upon the underlying organs because the bulk of the animal is so great. If, however, one were to cool down the external tissues of a baby to a similar extent the viscera must necessarily become affected by the cold almost at once; the only way to prevent their becoming affected thus is for additional calls to be made upon heat production in the child's body, and this entails a repeated drain upon what one may call the fuel of the engine. Sick children take food badly as a rule, and, broadly speaking, anything which can conserve their fuel is good for them. It is probably in this way that oiling the surface of the child's body does good; the oil is a bad conductor of heat and many a marasmic child has been saved by the external application of oil, not so much by reason of any of the oil itself becoming absorbed, as by reason of the resultant saving of heat loss and thus of fuel consumption. A greater proportion of the food taken becomes available for the intrinsic service of the body organs. One can do a good deal more towards saving the infant's fuel in a similar way by taking care not to expose the body to external cold; if an examination of the chest has to be made it should be done in a very warm room or near a fire and not at what may be called the ordinary temperature of a ward. Infants and young children who are ill often do best in rooms which to healthy adults seem oppressively hot. This is by no means incompatible with proper renewal of the air in the room if the ventilation is seen to properly; it may sound heresy nowadays to say so, but I would rather nurse most sick infants in a hot room even if it were stuffy than in a cold one that was well ventilated. A simple expedient for maintaining the external warmth of a baby, whilst, at the same time, allowing it fresh, cool air to breathe is now used extensively in Guy's Hospital, and this is by means of a cradle over the child, two or three electric lamps being suspended within the cradle. A blanket covers the infant up to the neck; the face is exposed to the ordinary fresh air of the ward, a small cradle is placed outside the blanket covering the child's body, within the cradle are hung three or four ordinary electric lights; the cradle is covered with one or more blankets, which are well tucked in round the bed; the electric wire of the lamps passes in beneath them; the electric switch is turned on and the temperature within the cradle watched by means of a thermometer.

I am, of course, speaking of this treatment in a broad general way; one would not use it in conditions of high fever for example, but it is most beneficial in the treatment of marasmus, diarrhœa and vomiting with a tendency to collapse, ordinary bronchitis without high fever, and in many other similar circumstances; and the heat loss prevented by it does a great deal towards accelerating the child's recovery.

Radium Emanations in Rheumatoid Arthritis and in Diabetes.

A great deal is being written nowadays in connection with cures effected by radium and its emanations, even in the lay Press, and it is difficult to make sure what is real amongst the statements made and what is mere commercial advertisement. I do not propose to enter upon the great value of radium in the treatment of rodent ulcer and malignant disease, but I should like to tell you that I believe radium emanations are of very real value in the relief of certain cases of arthritis deformans or rheumatic arthritis and in some cases of diabetes mellitus. Precisely how the emanations act is quite unknown; it may be that they behave in some way merely as intestinal antiseptics do, or it may be that, like radium itself, they have the power of causing cells and tissues which have taken on an erroneous mode of growth and metabolism to return to normal ways. As Consulting Physician to King Edward VII.'s London Radium Institute, I have had the opportunity of watching several cases in which, after other forms of treatment had failed, both chronic joint lesions and diabetes mellitus have been greatly alleviated, if not absolutely cured, by drinking water containing the radium emanations daily over a period of weeks or longer. I should like to say in this connection that King Edward VII.'s Radium Institute is entirely different to any of the commercial or money-making concerns, some of which have made use of the Radium Institute Reports for commercial advertisement purposes. King Edward VII.'s Radium Institute was founded at the direct request of King Edward VII.; it was endowed by private individuals; it possesses the largest single stock of radium in Europe, and is placed at the service of medical men and their patients without any profit being sought. Well-to-do patients are charged small fees, which go into a common fund and help towards the precisely similar treatment of poor patients who are seen at the Institute without charge. No patient is seen or treated at the Institute except upon the introduction, and, if possible, in the presence of his own medical attendant, and any medical man is free to take his patient to the Radium Institute in this way. The only limitations are: First, that patients have to be taken in rotation because of the limits to the number of pieces of apparatus available, it being possible to treat only a certain number of cases each day; and secondly, the necessary restriction that the radium itself, being so enormously valuable, is not allowed to be borrowed away from the Institute itself. Emanations, however, can be sent by post, for, though derived from radium and having the same action as the radium itself, they are not radium; they are given off by radium, and by means of a special apparatus at the Institute they are drawn off and absorbed into water; the latter can be charged up to a certain point with emanations and, subject to the ordinary restrictions of supply, the resultant "radium water" is sent to the doctors who wish to use it. Unfortunately, the emanations pass away from the water fairly quickly, the strength of the latter as regard emanations falling to about half the original in two or three days and becoming weaker and weaker each subsequent day. By arrangement, however, limited only by the supply that the Institute can produce, the radium water can be sent out for the use of patients fresh and fresh each day by post. The dose required is from 250 to 500 cubic centimetres, which the patient drinks either all at one time, or, preferably perhaps, in three doses during the day, this being continued for weeks or months according to the chronicity and severity of the case. The cost—when a supply can be sent at all—is in the region of three guineas a week, in addition to an original consultation fee to the Institute of two guineas. Some patients, of course, may derive little or no benefit; in most cases of rheumatoid arthritis that I have seen, however, the changes become arrested in a few weeks, and, in some cases, people who were absolutely crippled to begin with have become able to use their joints in a way which at first would have appeared permanently impossible. The same applies to some cases of diabetes mellitus; perhaps the majority do not derive benefit from the radium emanation water, but some, at least, have been able to return to ordinary active life with freedom from acidosis and comparative freedom from sugar when previous treatment by diet and by drugs had failed to bring about any particular improvement at all. The difficulty in all these cases is to give statistical proof of the value of the treatment. In many instances there is bound to be disappointment if hopes are raised too high beforehand; if, however, the patient is prepared for the possibility of there being no improvement at all one can at least say that there will be no detrimental effect, and now and then a case will be benefited to an extent which, so far as one is able to judge in a broad way, would not have been brought about by other measures at present known.

The Intensive Iodine Treatment for Phthisis, Peripheral Tuberculosis and Other Chronic Microbial Infections.

The treatment I am about to refer to is very probably familiar to some of you already, but in case it is not I should like to draw attention to it, for it has proved of very material service to a number of cases in which I have tried it, both in Guy's Hospital and elsewhere. Who originated it I do not know; some tell me that it was first devised in Scotland, others that it came originally from Switzerland, but it was Dr. Reeve who first brought it to my notice and who has written about it recently in *The Practitioner* for September, 1913, p. 391. I was already trying the treatment before that paper was published, and, although it is too early to boast much of the results, there can be no doubt that almost all the cases who have tried it have been benefited by it, and, notwithstanding the comparative nastiness of the treatment itself many of the patients have asked to continue with it after it has been omitted temporarily. Patients, for instance, who have had the treatment in the wards and have afterwards become out-patients have voluntarily asked to be allowed to go on with the treatment under out-patient supervision. Iodine is now well-known as a very potent germicide, for which purpose surgeons use it locally in preference to almost any other application in preparing the skin surface for operations. One cannot, however, administer any large quantity of free iodine by the mouth without irritating the gastro-intestinal tract and producing vomiting and diarrhœa. One can, however, give large doses of iodide of potassium by the mouth, and, after this has been absorbed, one can give chlorine water which is also absorbed, the chlorine breaking up the potassium iodide to form potassium chloride and free iodine. The idea of the treatment is to liberate free iodine in this way in the blood and in the tissue juices, so that, wherever the free iodine is present in close proximity to bacteria the latter will be, at least, inhibited in their rate of multiplication even if they cannot be directly killed by the small quantities of iodine present at any one time.

The method of carrying out the treatment is as follows:—The patient takes a single dose of potassium iodide in the morning, say, about 8 a.m., the amount given to start with being generally about 30 grains at a time, though if the patient can take it readily there is no reason why double this quantity or even more should not be used. Sufficient time is allowed to elapse to allow all the iodide of potassium to be absorbed; unless the patient's digestive processes are unusually slow the whole of the potassium iodide will have left the alimentary canal at any rate within six hours, and it has been found by investigation that it does not become eliminated from the system by the urine or elsewhere within twenty-four hours. At 2 p.m., therefore, one can give the first dose of chlorine water. If one gives the chlorine water earlier than this one finds sometimes that the patient is almost immediately sick, bringing up vomit which is blue as the result of the liberation of free iodine in the stomach, the iodine in its turn giving the typical blue colour with the starch in the food. One can repeat it at 4 p.m. and at 6 p.m. Next day potassium iodide is again given at 8 a.m., and the chlorine water repeated at 2 p.m., 4 p.m. and 6 p.m.; and so on for many days or weeks. It is found best to give the chlorine water an hour and a-half or more after the last meal; if it is given immediately after food it is apt to produce vomiting, but some milk may be drunk after each dose of chlorine water without detriment. The chlorine water itself is prepared according to the following formulary:

℞ Potassii chloratis, 60 gr.
Acidi hydrochlorici concentrati, 120 m.

Place these ingredients in a dry bottle, allow the reaction to proceed for fifteen minutes; and add water gradually to 24 ounces. Dose: one ounce to be taken in plenty of freshly made lemonade.

Certain precautions are needed in connection with it, however, for when newly made there is often far too much free chlorine gas in the bottle to allow of the patient's swallowing the liquid without at the same time inhaling chlorine gas, which irritates the larynx and bronchial tubes and produces oppression in the chest and much coughing and spluttering. It is a good plan to leave the stopper out of the bottle for twenty-four hours or more after the chlorine water has been made, and then for the patient to start at the first attempt with a very small dose such as a teaspoonful or less, diluting it well with lemonade to begin with. The patient will soon learn how little he has to dilute the chlorine water to make it possible for him to drink it, and, after the first day or two, he will also learn how to tell when the chlorine water is, as it were, ripe for ingestion. It is true that a certain amount of the chlorine is lost in this way, but sufficient remains in solution to effect the purpose desired provided the bottle is not left longer than is just sufficient to make it possible for the patient to drink its contents when diluted with lemonade. The dose to be aimed at then is one ounce at 2 o'clock, one ounce at 4 o'clock, and one ounce at 6 o'clock. Some authorities aim at giving even more than this, but upon the whole doses of one ounce are the most satisfactory. The patient should be prepared for two separate kinds of temporary ill-effects: the first depends upon the iodism which ensues; in some cases, symptoms of iodism are absent or very slight, but frequently there is headache, running of the eyes and nose, spottiness of the skin and some depression which, if the patient were not prepared for them beforehand, would make him certain that the treatment was making him worse. As a rule, however, without any change in the treatment the symptoms of iodism pass off by themselves in ten days or a fortnight, and, although cough and expectoration may be temporarily increased, these presently diminish, the patient's weight increases, the temperature gets less and the patient himself feels that he is very decidedly getting better. The other type of ill-effect that may ensue is frequent action of the bowels or a tendency to vomiting; if these occur the treatment may be omitted for a day or two and then begun again. There will, of course, be cases in which it is found impossible to go on and, as with any form of treatment, there will be cases in whom no improvement results. There are, however, a sufficient number of others in whom the benefit is so marked that I am sure that some of you may wish to try this intensive iodine treatment, and it is on this account that I bring it to your notice.

Note.—*A Clinical Lecture by a well-known teacher appears in each number of this Journal. The lecture for next week will be by Robert Saundby, M.D., M.Sc., LL.D., F.R.C.P.L. and I., Professor of Medicine in the University of Birmingham, Consulting Physician to the General Hospital, Birmingham. Subject: "The Treatment of Obesity."*

ORIGINAL PAPERS.

DIAGNOSIS IN EVERYDAY GYNÆCOLOGY. (*a*)

By H. MACNAUGHTON-JONES, M.D., M.Ch., M.A.O., R.U.I., F.R.C.S.I. and Ed.

In preparing this address I kept carefully in mind the injunction of your President that it should be of an essentially simple and practical nature.

It is the readiness to grapple with the early beginnings of disease that renders the functions discharged by the practitioner of such vital importance to the public health. Throughout all medicine and surgery, the old proverb, "A stitch in time saves nine" takes first place. The general practitioner is the keystone of the arch of the general health, all the more so now that the "panel" system has come into operation. The hard-and-fast line drawn between the consultant and practitioner has its disadvantages. The unfortunate term "specialist" has come to be interpreted in the eyes of many as implying a degree of ignorance on the part of the one person in whom of all others they should have confidence. They have even come to draw a hypothetical distinction between the "specialist"

(*a*) Abstract of Address delivered before the City Division of the British Medical Association, March 27th, 1914. Followed by a lantern demonstration.

and "consultant," placing the latter in an inferior position, should he not exhaust his whole mental resources in dealing with one small portion of the human mechanism.

Unfortunately for the application of this idea, that machinery is not constructed on the plan of the motor car. Though in common speech we use terms that would imply there is some analogy, this is incomplete at every point. Many years since Letheby said that the heart was a more economical force than the steam engine in the foot pounds it raised in proportion to the fuel supplied. But you can remove the motor engine, and clean or repair it; you cannot do this with the heart. When your car is "overhauled," it can be taken to pieces, and each part can be attended to separately; not so with the human machine when it comes to you for its overhauling.

Gynæcologists, fortunately, have to deal largely with parts that are not actually essential in the running of the human motor. Uterus, appendages, and appendix may all be sacrificed either at the same or different times, and yet, though not a "complete" woman, your patient may be a healthy one. I know some such in perfect health to-day from whom all these parts have been taken years since. On the other hand, every part of your motor machinery is essential to the running of your car.

This explains why early indications of disease in the pelvic viscera are often trifled with. Pain, the usual warning of coming breakdown, is often absent, or, if present, is counteracted by sedative or hypnotic remedies, or some palliative means are adopted to stay the unpleasant discharge, the frequency of micturition, the sense of dragging, the catamenial erraticism in time or quantity, some reflex neurosis in an organ of sense or digestion, or through the circulatory current in the heart. Besides, in different women the capacity to bear pain varies greatly. A trivial degree will cause one to complain, whereas in another the power of endurance and the dislike to attract attention or to cause trouble leads to concealment up to the breaking point of health. Meantime, the early evidences of malignant changes in some part of the genitalia are overlooked, the leucoplakic patch is altering, the vaginal ulcer is spreading, the cervical erosion is deepening, the endometritis is becoming suppurative, the degeneration of the myoma uteri is setting in, tube and ovary are becoming involved, A little later on, and hydro-salpinx or pyo-salpinx is forming, the ovary is becoming cystic, and infection is spreading either from appendix to ovary or in the reverse direction from ovary to appendix.

Surgical assistance is the next court of appeal.

This is no highly coloured description. It is what every practical gynæcologist knows to be constantly happening. The detection of the earliest signs and symptoms which indicate departure from the normal processes and interchanges in cells, tissues, structures and parts, is in the hands of the practitioner. Is it not safe to say that if they were recognised, and curative means adopted at this stage, a very large percentage of mutilating and life-risking operations would cease to be necessary. Their detection by careful first examination in a great majority of cases is not difficult. Treatment is generally simple, and the lines of action are clear.

The facilities for the acquisition of practical knowledge in all departments of medicine and surgery have so developed that any and every industrious and ambitious student has within his reach, during his five years of study and those that immediately follow, ample opportunities of mastering all the therapeutical and technical operative steps required in dealing with the ordinary affections embraced under the head of gynæcology.

There is no more characteristic advance in modern surgery than the assumption of independent action by the practitioner in the operative procedures which come within the reach of his experience and skill. The field for such an exercise has greatly increased of recent years. Out of the competition between the consultants, the practitioner has reaped his advantages in post-graduate courses and polyclinics. You will supply the term that is applicable to the undertaking of any procedure which is not justified by the operators' knowledge and experience.

We come now to consider the most important step in the diagnosis of those abnormal conditions which are every day presenting themselves for detection and treatment. This is, the *first examination* of the patient. I press on you that for your own safety as for her benefit, whenever possible, a short note should be made at the time of her history in relation to age, the catamenia, pregnancies, abortions, previous illnesses, bowel action, evidence of bladder trouble, discharges, and the nature, character, and situation of pain. With such knowledge the object and scope of the examination in a large proportion of cases may be determined beforehand. Of special importance is the time of occurrence and the character of the *last* menstrual period. In every suspicious case we have first to exclude the possibility of pregnancy. If doubt arises, there should be some witness of the tests you apply. *The wariest rat may enter a trap.* In the instance of a virgin, the resort to a vaginal examination will depend on the nature and urgency of the symptoms, or the failure of past remedies to relieve *these.* Here, judgment and discretion must come in. Do not go on treating a sufferer from persistent primary amenorrhœa with emmenagogues who has an atresic vagina, or send a girl to Schwalbach or Spa in whom the genitalia are absent! As a rule, obstinacy and urgency in symptoms must decide the point. This is essentially a case in which an anæsthetic should be availed of. No thoroughly satisfactory decision can be arrived at without it.

Let us here briefly consider the conduct of the examination without an anæsthetic, and what we learn from it.

It is this first examination which frequently determines diagnosis and treatment. Carelessness in abdominal palpation, percussion, and auscultation will leave undetected the loose kidney, which you will not be wrong in making your first quest for in your abdominal search; we overlook the sense of resistance, dulness, or fluctuation, and the sensitiveness caused by pressure in some part, or direction, as in McBurney's or Lanz's points indicative of appendical complication; the characteristic resonance of the flanks in differentiating ovarian cystoma from ascites; feel or detect contraction of the pregnant womb, confirmed by associated signs, in the exclusion of pregnancy in the case of myoma, while we keep in mind the occasional co-existence of both of these states, as also the presence in a large fibroid of a misleading bruit which may be confounded with the uterine souffle; the relative sensitiveness in the two inguinal regions, and the detection in either of any swelling or the presence of enlarged glands.

At the right side we keep appendical, ovarian, and cæcal complications in view; at the left, ovarian, sigmoid, and occasionally also appendical. We remember that there is such a thing as left-sided appendicitis, and an appendix carried over to become adherent to the sigmoid, as also appendiculo-ovarian complications at both sides.

Coming to the external genitalia, even the labia may lead us into oversight or error. Such mischance may happen to the most experienced. He is a bold or extraordinarily fortunate man who cannot recall occasions in which too hurried a conclusion has led him to give a wrong opinion in gynæcology. A hydrocele of the cord or a cystic Bartholin's gland may be mistaken for a hernia, or *vice-versa*. The examination of the urine may be overlooked in pruritus vulvæ, and the diabetic or other source of the irritation pass unrecognised. The dorsal position is the only proper one for the examination of the introitus. At the outset we may find an introitus closed by an imperforate hymen. Readily we detect the source of painful or frequent micturition in caruncle, some prolapse, procidentia, or a vaginal cyst at the outlet. New growths or ulceration, whether benign, malignant, or specific, are at once recognised; so is the characteristic appearance of the mucous surfaces often present with malignancy, as also the white leathery look of leukoplakia. Note is taken in passing of the anal opening, the presence of hæmorrhoids, and the integrity of the perineum, the deficient character of the latter has its common association in a relaxed introitus, a vaginal prolapse, a cystocele or rectocele.

It is well to make the preliminary vaginal examination in the Marion Sims' position, the pelvis slightly elevated, the back of the left hand on the right scapula, and the right arm over the couch, with the head turned to the left. With the antiseptic tube of formalin or cyllin cream or lard, the old filthy practice of the pot of vaseline used in common for different cases has disappeared. In every instance where a final decision has to be arrived at the bowel and bladder should be emptied beforehand.

A word of caution is here necessary. Any abrasion on the examining hand will suggest the use of the rubber glove, and in all cases of suspicious discharge and sores this precaution should be taken. I have known some sad cases of infection and blood poisoning arise from its neglect. I need not say that careful and thorough disinfection of the hands should follow each vaginal examination.

This vaginal search excludes erosions, ulcerations, and growths in the vaginal wall, as well as encroachments from the rectal and vesical sides. We judge the character of the portio, its length, shape, hardness or softness, the size and feel of the os uteri, and the mobility or fixation of the uterus. We ascertain the presence of any swelling in either fornix, a prolapsed or sensitive ovary or swollen tube. Should any such condition of uterus, tube or ovary be discovered, the dorsal and bi-manual examination should follow.

The next and concluding step is the bi-manual examination which includes the recto-vaginal, recto-abdominal, and recto-vesical. Here the dorsal lithotomy position, with the buttocks well to the edge of the couch, and leg-straps or rests, are essential. Our accessories are a duckbill speculum, uterine hook, different sized tubular specula, and the uterine sound.

If we have satisfied ourselves fully by a process of exclusion in the previous lateral examination, on the points mentioned, all that we may require to see is the condition of the external genitalia and the state of the cervix. For this the tubular speculum only is required. Otherwise, the duckbill is brought into requisition, and the uterus, unless fixed by adhesions, or retracted by growth, is drawn well into view and the character of an erosion, the presence of a polypus, the nature of a laceration, or the indications of malignancy, are determined.

All evidences of pregnancy having been excluded, the length and direction of the uterine canal are found by the uterine sound. Withdrawing the speculum, with two fingers of the left hand in the vagina, and the right on the abdominal wall, we estimate the size and mobility of the uterus or growth, its direction, and mobility. Searching either fornix, we satisfy ourselves as to the condition of the ovary and tube. In any case in which there is a swelling or tumour in Douglas's pouch, we make a combined rectal examination. Here, especially, there is a call for gentleness and slowness. The well-greased finger is slowly introduced, and the sphincter gently dilated. It is then carried well up, so as to reach the adnexa, and the suspicion of an ovarian or tubal enlargement is confirmed. If there be a tumour behind the rectum, such as an osteo-sarcoma of the sacrum, it will be readily detected. It is well at the same time to make a bi-manual examination with the other hand in the vagina; and, lastly, the recto-abdominal method which will help to throw light on any possible complication of a uterine or ovarian growth. If there be a suspicion that the uterus is ill-developed, or absent, the rectovesical test with the sound in the bladder and the finger in the rectum will determine this.

Long as it has taken to describe in detail this examination, in practice it can be conducted in a very short time. When completed, we have detected or excluded all the grosser changes in the pelvic viscera. We have taken note of the source, quantity and nature of the discharge, retaining if necessary some for microscopical and bacteriological examination. We have satisfied ourselves as to the condition of the external and internal genitalia, and, most important of all, the presence or absence of those signs which are indicative of existing or threatening malignant change. Follow this up with an examination of a catheter specimen of the urine, and all the essential facts involved in diagnosis will have been elicited.

In regard to the bladder, every now and then cases occur in which the cystoscope is necessary to decide the cause of the vesical pain, cystitis, or hæmaturia. With any care stone in the female bladder cannot escape detection. Obviously if renal or urinary signs and symptoms point to the possibility of a calculus in the kidney or the ureter the X-ray should be availed of to detect or exclude it.

There are not a few cases in which it is absolutely necessary to resort to anæsthesia in order to arrive at a satisfactory conclusion. In nervous and sensitive women who involuntarily resist, when the abdominal muscles tighten and render the wall tense and rigid; where there is a large pendulous and fat abdomen in which palpation and bi-manual touch is difficult; in cases in which we require complete relaxation and very thorough bi-manual exploration, so as to decide some uncertain point or suspected complication. Whenever such difficulties or doubts exist an anæsthetic is absolutely needed.

If we have excluded the genitalia and lower rectum, yet are still in doubt as to the cause of pain, a more careful search under anæsthesia may disclose a swelling in the sigmoid, and call for a sigmoidoscopic examination. In all such doubtful rectal cases, it is well to see the character of the stools on a few occasions. We may find some material evidence to assist us in pipe stem or ribbon-like motions, and the presence of blood or mucus.

I trust I have not taken up your time uselessly in recalling to your minds the vital importance of an early, complete and correct diagnosis. One final word. Do not be led into the error, when you discover a uterine or adnexal disease or some other error of function in the genitalia, of ascribing to this every other ill from which the woman suffers. The organs of the body, though federated by the circulatory current, nerve distribution and connecting links, have each an autonomy of their own. The human body is essentially a perfect democracy in its system of government. The smallest ganglion or gland claims independent freedom and liberty, though recognising the right of its local centre to control its action, while the latter obeys the central government. Consequently, each organ has to regulate its own governmental system, the responsibility of rectifying its special insanitary states. We have to realise this in the general treatment of the woman. He is the soundest gynæcologist who includes in his review of her pelvic organs an enquiry into the health of any other to which symptoms point as demanding attention.

At the same time there are reflective disturbances of function of organs remote from each other when any one is seriously involved, and such uterine reflective neuroses are not of uncommon occurrence. Hence we have to discriminate between the functional error due to such neuroses, and that which follows an organic change. A woman with a retroversion of the uterus suffers from sickness and headache. The former symptom may or may not be a neurosis; the latter may be consequent upon an undetected error of refraction.

I conclude with my favourite aphoristic motto, "Bene diagnoscit bene curat."

(A lantern demonstration illustrative of several of the points touched on followed.)

A CASE OF BANTI'S DISEASE.

By F. J. BAILDON, M.B., C.M.,

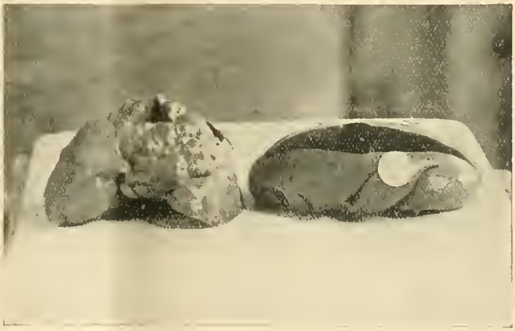
Senior Hon. Medical Officer, Southport Infirmary, etc.

On February 13th, 1913, E. W., a young girl æt. 15, was admitted to the Southport Infirmary with the following history.

She had been working in a painter's shop where there is a stove kept hot in the daytime. On leaving work one cold night about a fortnight previously she got a chill and had some shivering attacks. She went to bed and sent for her medical man, who considered the case to be one of acute Bright's disease. He treated her for this, and she was sent into the Infirmary as suffering from this complaint.

On admission her temperature was 101.8; pulse, 128; and respirations, 28. Her face was puffy and white. There was some blood in the urine, but no casts were found, and unless blood was present there was no albumen. The abdomen was distended with fluid to such an extent that it was impossible to palpate any of the abdominal organs. She was put on a mild diet, dry-cupped over the loins, and a mild diuretic mixture prescribed.

No improvement followed, but the blood in the urine diminished in amount, and its presence became intermittent to some extent. The child had no pain, and did not appear much distressed. The abdominal distension increased so much that on February 22nd a Southey's tube was inserted, and in a few hours eleven pints of clear serum were drained off. Two days later another five pints of serum were drawn off. The removal of this large quantity of fluid made palpation possible, and a large mass was detected in the left hypochondrium, which was tender on pressure and which had a sharp border. Later on the splenic notch could be made out. No enlargement of the liver could be felt.


Spleen and Liver from case of Banti's Disease. White circle = 1 inch.

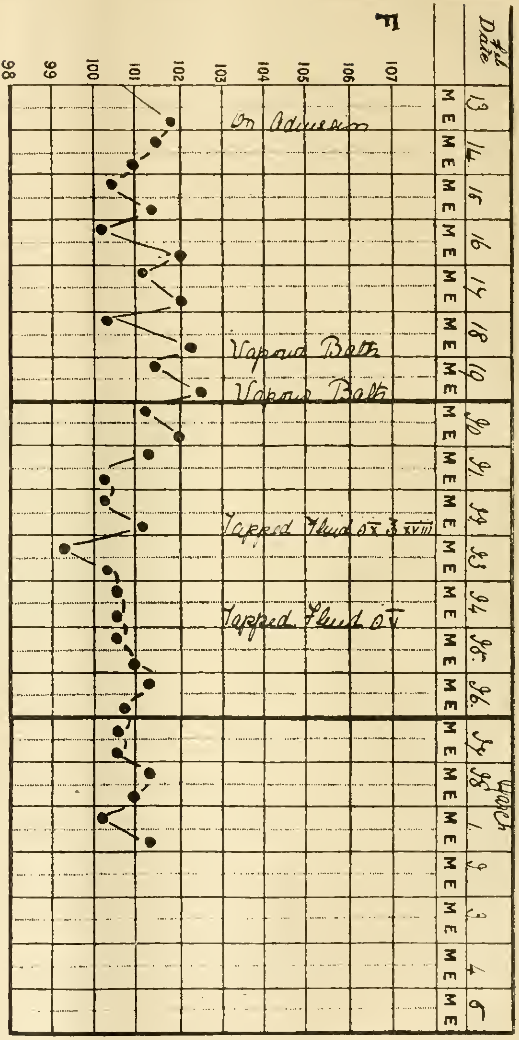
The girl was evidently very ill. A large, deep ulcer with a sloughy black base appeared inside the right cheek, followed in a day or two by a similar one inside the left cheek and a smaller ulcer on the tip of the tongue. These had the appearance of cancrum oris, but the external skin was not affected; there was no hæmorrhage, nor was there any offensive odour. During the last few days of February she complained of pain in the rectum, and a painful red patch appeared at the side of the anus. About this time some œdema round the ankles was observed. As will be seen from the chart, her temperature ranged from 99 to 102.6, and it averaged about 101. On March 2nd, some large blood-clots were passed from the bowel, and shortly afterwards death took place.

Permission to make a limited *post-mortem* examination was obtained. The spleen was much enlarged and weighed 1 lb. 5 oz. The liver was cirrhotic and weighed 1 lb. 12 oz. The right kidney was swollen and pale on section. There were some adhesions round some of the abdominal organs. No enlarged glands were found. There was no jaundice. No examination was made of the blood, but the patient was clearly anæmic, and the anæmia together with the enlargement of the spleen and the cirrhosis of the liver form the combination of symptoms known as Banti's disease.

A full account of splenic anæmia and its terminations, one of them being known as splenomegalic cirrhosis of the liver or Banti's disease, may be found in an article by Dr. Lyon in the "System of Medicine," edited by Osler and M'Crae. It is not a very common complaint, and nothing is known of its causation. Dr. Buchanan describes the changes in the composition of the blood in his book, "The Blood in Health and Disease," and I refer to these works for a complete account. One or two points are of interest in this case, however, and may be mentioned. First, the very short history of what is considered to be a chronic disease, the history in some cases extending over many years. Acute cases are mentioned, but looked upon as doubtful. This girl when admitted had the appearance of having been ill for months instead of days, and the liver and spleen give the same impression, as may be seen from the illustration. This girl was at work and apparently well five weeks before her death. Secondly, the disease is much more common in males than in females. Dr. Lyon records 47 cases, of which only 8 are females. Thirdly, although cases are recorded in children, it is mainly a disease of middle life. Fourthly, the occurrence of a febrile temperature is said to be unusual.

It would appear as if an enlargement of the spleen with anæmia and cirrhosis of the liver may exist in a quiescent stage for a long period of time or until some intercurrent complication, such as a chill, disturbs the balance of the organism and so precipitates the end. We know that advanced cirrhosis of the liver may be present without ascites. H. G. Sutton, in his "Lectures on Pathology," says that the most extremely cirrhotic liver he ever saw was in a man who met with a fatal accident when at work, and there was not a sign of dropsy. A sort of compensation may arise which enables the individual to maintain a reasonable state of health, but which soon collapses when the balance is upset.

I wish to express my thanks to Dr. Hearn for the careful notes he took for me. The liver and spleen are in the collection in the Thompson-Yates Laboratories, Liverpool.



Temperature Chart.—Banti's Disease.

WHY MUST WE ALWAYS THINK OF SYPHILIS?

By Professor P. SPILLMAN, M.D.,

[Specially Reported for this Journal.]

We know by experience that syphilis is no respecter of persons or social distinctions, that—venereal or non-venereal—it crops up here, there and everywhere, that innocent victims are legion, that the disease is hereditary and may be transmitted even unto the second generation, that many victims are ignorant of their misfortune—so much so that in at least 15 per cent. of tertiary lesions the mode of infection remains a mystery.

In both hospital and private practice I meet with many cases illustrating the necessity for always bearing the possibility of syphilis in mind. I will mention a few of them as object-lessons.

We will commence with the respiratory apparatus. What is commoner than pulmonary tuberculosis, and what can be more discouraging than the diagnosis of a confirmed lesion? Fortunately, in a certain number of cases, things are not as bad as they look.

A young woman, 27 years of age, five years married, had been losing flesh for seven months, had an evening rise of temperature, incessant cough, and copious expectoration. On October 2nd, 1906, she had a sharp attack of hæmoptysis. Auscultation revealed signs of infiltration throughout the right lung, with breaking down at the apex. In spite of a negative bacteriological examination, the case looked unpromising. This patient, however, presented traces of serpiginous syphilides on the legs and lower part of the body. She had been contaminated early in her married life by her husband (who later manifested cerebral and spinal symptoms). Intensive mercurial treatment and an altitude cure effected complete cure within six months with a gain of 25 lbs. in weight, and recovery has been maintained for the last three years.

A similar case is that of a medical man, 32 years of age, syphilitic since six years, inadequately treated by means of pills of protoiodide. Cough, dyspnœa, loss of flesh, hæmoptysis, and signs of extensive softening. This made us suspect syphilis, and he was put injected with grey oil, under which he quickly recovered. It follows that we must always bear in mind the possibility of pulmonary syphilis, and even if tubercle bacilli be found in the sputum the lesions may be mixed, and therefore in part amenable to mercury.

Turning to the circulatory apparatus, we meet with cases of aortitis, apparently due to other causes, which nevertheless immensely improve under mercury and iodine. Syphilis is certainly responsible for 70 per cent. of cases of aneurysm, and this information suggests a more hopeful means of dealing with them than is usually supposed.

I may add that many otherwise inexplicable cases of anæmia do better on mercury than on iron simply because their origin in reality is syphilitic.

I have never come across such striking cases as those reported by Andral, Fournier, Dieulafoy, etc., of the successful treatment of profuse hæmatemesis by mercury and iodine when due to breaking down gummata, but I have seen cases of pseudo new growths of the liver cured by anti-syphilitic treatment.

A girl, æt. 26, following an injury, presents what seem to be ordinary exostoses, but they proved to be manifestations of delayed heredo-syphilis and yielded to treatment, recurring—this time without any traumatism—when it was abandoned.

Lesions of joints apparently caused by injury or due to tuberculosis may be syphilitic. Dr. Louis Stillmann presented an instance of the kind before the Medical Society, and I myself have shown a case in which bilateral hydarthrosis proved to be due to heredo-syphilis in a girl who was also suffering from a lesion which looked like a tuberculous gumma. It is unnecessary to add that treatment was followed by prompt recovery

Lesions of mucous membranes are those in which the patient derives most benefit from treatment based on the suspicion of syphilis. I have published many cases which bear out this statement. How many patients, long and vainly treated for lupus of the pharynx, have been cured in a few days! In some instances they did not come under observation until after destructive lesions had worked havoc, but in many others the healing was complete. Some of these patients made a point of coming to see me at regular intervals without waiting for any actual lesion.

It is in respect of the cutaneous and nervous systems that syphilis reserves the greatest surprises. Take, for instance, the case of a man with well-marked nervous heredity, 40 years of age, who, three months after an attack of typhoid fever, presented symptoms of disseminated sclerosis. We suspected syphilis, and after the third injection of grey oil the symptoms cleared up.

In times gone by we did not recognise the possibility of syphilitic polyneuritis. An instance in my wards published by Dr. Etienne shows the remarkable efficacy of treatment, and nowadays the number of cases of neuritis cured by mercury is very great.

Similar good results are obtained in paraplegia, even when syphilis is denied or has been overlooked. I can recall the case of a man who, in good faith, denied any previous disease, but in whom close examination revealed the scar of a buccal chancre. This patient, who was absolutely impotent when he came under observation, recovered so rapidly under treatment that no reasonable doubt could remain. All cases of myelitis, the infective origin of which is not plain, should be treated intensively, and this will often prove successful. In a case of cerebral tumour (Etienne, 1899) extremely rapid improvement followed, but what would have happened if the original diagnosis of cerebral tuberculosis had been adhered to and acted upon?

Hydrocephalus, formerly reputed incurable, has greatly benefited since we have learned to understand its relationship to heredo-syphilis. I communicated a case of the kind to Dr. Edmond Fournier, who has collected a large number of instances.

Investigation of 105 cases of locomotor ataxy and 79 cases of general paralysis, carried out by Dr. Perrin, authorises the conclusion that these affections are directly dependent upon syphilitic infection and are in a variable degree amenable to anti-syphilitic treatment.

Syphilis is admitted or otherwise certain in 81 per cent. of our cases of general paralysis and is highly probable in 91 per cent., hence the desirability of instituting the treatment *ad hoc* This may not cure the tabetic general paralytic, but my experience goes to show that it benefits one in four of the cases and prolongs the period of remission in the others.

In locomotor ataxy syphilis is certain in 82 per cent. and probable in 90 per cent. The mercury and iodide treatment ought always to be imposed even in the absence of a clear history of syphilis, for it yields better results than in general paralysis. In 21 per cent. recovery has followed, in 25 per cent. there have been prolonged remissions, in 5 per cent. remission followed by relapse due to too early abandonment of the treatment, in 11 per cent. noteworthy slowing down of the course, and 42 per cent. experienced notable symptomatic benefit. The specific treatment of tabes in point of fact only failed altogether in about 13 per cent. of the cases collected by Dr. Perrin, and then in persons in whom the treatment was inaugurated at too advanced a stage.

In neurasthenia the absence of organic signs does not conclusively prove non-dependence on syphilis. A young man, a stationmaster, suffering from loss of memory, headache, lassitude, etc., thought proper to hide from his doctor the fact that he had had syphilis nine months before, and ultimately he drifted into my consulting-room, where I managed to elicit the fact, and under suitable treatment he was able to return to work in a few weeks.

Numerous, too, are the cases of cerebral arteritis thus cured, and these cases are the more typical in view of the absence of objective signs.

I stated earlier that the nervous system and the skin afford a rich harvest of cases cured by treatment instituted in spite of the absence of evidence of syphilis. I have notes of a large number of ulcero-tuberculous lesions and lupus, which promptly cleared up under specific treatment. It would be easy to multiply these instances, if instead of limiting myself to my own cases I dipped into the copious literature on the subject. The fact which I wish to impress upon you is that syphilis is a very "simulating" disease, that not only may it closely resemble other well-known diseases, but its own pathognomonic lesions may be curiously absent. Then, too, we cannot rely upon the cooperation of our patients, since for various reasons they may leave us in ignorance of their past pathological history, of which, for that matter, they may, exceptionally, themselves be ignorant. Since we know that many diseases apparently of quite a different nature *may* in exceptional instances be due to syphilis, it behoves us to be on the lookout for it and to bear in mind that even when syphilis is not alone involved, anti-syphilitic treatment will do good by relieving the organism of at least one source of depreciation.

CERVICO-FACIAL ACTINOMYCOSIS.

By A. PONCET, M.D.,

Professor at the Faculty of Medicine of Lyons.

Gentlemen,—For the second time this year, and at a short interval, I present to you a case of cervico-facial actinomycosis. You ought indeed to familiarise yourselves with an affection which is fairly common and but too often passes unrecognised, especially by practitioners who have not had the good fortune to meet with clinical examples thereof, yet it is one in which a correct and early diagnosis is all important, since without it we are unable to bring to bear the therapeutical resources from which we are entitled to hope the best results

This young woman is 21 years of age. She presents nothing of interest in her personal or hereditary antecedents. She comes from Bresse, a district with a moist climate, where they grow cereals. Dr. Berard and I have placed on record several cases of the disease precisely from this part of the country.

As a farmer's wife, our patient owns and comes into contact with cattle, especially cows. Now you are all of you aware of the frequency of actinomycosis in the bovine race, and of the fact that the fungus develops on the straw and other vegetables on which these animals feed. These are points to be noted because they may put us on the track of the probable origin of the disease which brings the patient to hospital.

The patient had enjoyed the best of health down to last August, when she began to complain of pain in the left half of the lower jaw, more particularly behind the angle of the jaw. A swelling made its appearance, and as there were several decayed teeth on that side it was naturally assumed that the trouble was due to them. This, gentlemen, is a very easy mistake to make, especially as decayed teeth and actinomycosis are often associated. As a matter of fact, decayed teeth seem to favour inoculation with the infection of actinomycosis. In such case we often find ulcerations of the buccal mucosa, the edges of the gums are affected, the alveolar cavities are gaping and offer so many doors of entry for the fungus of actinomycosis when accidentally taken into the mouth, and once it has gained a footing in the tissues it thenceforth multiplies at its ease.

Whatever may be the part played by decayed teeth in actinomycotic infection in general, certain it is that in this particular instance the trouble was attributed solely to the bad state of the teeth, and this unfortunate assumption dictated the treatment. Three decayed molars, including one wisdom tooth, were extracted, and matters seemed to settle down. Unfortunately this was only apparent, for a few days later the pain and functional disturbance reappeared, the trismus got worse, and so did the sub-maxillary engorgement.

This peculiar course is very significant, and I would ask you to take particular note of it. In accidents of dental origin extraction of the teeth usually puts an end to the trouble, but in actinomycosis only temporary, fugitive relief is obtained. I would indeed go so far as to state that after a brief interval of quiescence the symptoms recur with enhanced activity. The fungus finds an excellent cultivation medium in the tissues damaged by the extraction. So much is this the case, that if there be the slightest suspicion of the case being one of actinomycosis it behoves to be cautious how we traumatise the mouth.

Therefore, in spite of, possibly indeed on account of, the unfortunate intervention of the dentist, the local state promptly got worse, and the patient was sent to the Croix Rousse Hospital under Dr. Delore.

By that time it was plainly a case of actinomycosis. There was an extensive swelling on the cheek and in the sub-maxillary region, the tumour was red, livid, with an inflammatory aspect and of cardboard consistency without any tendency to suppuration. The clinical signs of the affection became still more evident in the course of the next few days. Here and there appeared fluctuating pimples standing out from the rest of the tumour. On opening them there escaped, not pus, but a characteristic blood-stained serous fluid, containing tiny puriform masses, like yellow grains, and microscopical examination clearly established the actinomycotic nature thereof.

I may observe that although positive microscopic results confirm the diagnosis and place it beyond question, the absence of the specific elements does not *per se* exclude the diagnosis, because it is sometimes very difficult to demonstrate their presence. Epecially is this the case after the iodine treatment has been commenced; in fact, all trace of the yellow grains has been known to disappear after six days' treatment.

But let us return to the patient. As you see, she presents a bluish-red tumefaction occupying the left maxillary and genial regions. It is of considerable size, and, owing to its bright colour, it looks inflammatory, so much so that a careless observer might be tempted to stick a knife into it. We, better advised, shall do nothing of the kind, for not a drop of pus would escape. On palpation, this tumour presents a peculiar, cardboardy, uniform hardness, and there are no soft spots. I need hardly point out that glandular inflammation of four months' standing would long since have broken down, and this slowness of evolution, this indisposition to suppuration is peculiar to actinomycosis.

Then, too, this mass has ill-defined margins; the thickening extends vaguely in all directions, imperceptibly merging into healthy tissue. Over the zygomatic arch you see some pustules like those already opened. These we will incise before you, and you will see the blood-stained serum to which I have already referred, containing puriform flakes of fibrin, which must be distinguished from the yellow grains peculiar to actinomycosis. There is no glandular enlargement and no temperature.

The functional troubles consist especially of pronounced trismus, the patient has the greatest difficulty in separating the jaws, speech is interfered with and mastication impossible. This symptom is pathognomonic.

She has been taking iodine, and already it is beginning to produce its effects. Though the swelling has not yet undergone any noteworthy change, the trismus is less rigid and the teeth can be separated to a greater extent.

With regard to treatment, the superficial, breaking-down lesions have been opened, curetted and painted with tincture of iodine. She is also taking iodide of potassium internally in doses as large as she can tolerate. In refractory cases it is well to associate the iodide treatment with the administration of arsenic, preferably in the form of an organic compound such as the cacodylate of soda, given hypodermically. No doubt in the course of a short time we shall see very tangible results, and in the meantime I advise her to get out as much as she can in order to expose the lesions to the sun because the parasite of actinomycosis, like most of its kind, seems to be particularly sensitive to the direct action of the solar rays which greatly hinder its development. By this means we may confidently hope to cut short an affection which would otherwise infallibly go from bad to worse.

I am enabled to show you a whole series of photographs of persons suffering from actinomycosis, *inter alia*, that of a young man, also from Bresse, who comes to us now and then for inspection. He, too, is suffering from angulo-facial actinomycosis. His case is identical in almost every respect with the one I have just demonstrated before you except that in this instance the mischief is limited to the characteristic tumefaction and trismus. Now that you have seen at least one example of the disease in a living subject, these photographs will enable you to remember the various forms in which the disease may present itself. Looked at as a whole the appearances are really very characteristic, only you must have an open mind, and the possibility of a given maxillary swelling being due to actinomycosis must occur to you. Should your suspicion be excited, nothing is easier than to verify the diagnosis and institute the specific treatment, and any failure in this respect would reflect discredit on the practitioner.

OPERATING THEATRES.

FRENCH HOSPITAL AND DISPENSARY.

Abscess of the Dorsum of the Penis, with Complication of Simple Sores under the Prepuce.—The patient, a cook, æt. 21, operated on by Mr. de Meric, had contracted sores in South America, which had been treated on board ship by cauterisation and lotions. The sores came on four days after connection, but the man said he had been with the same woman more than two months before when the ship was at Buenos Ayres. On admission to the French hospital he had already had the sores for five weeks. Fifteen days after admission a small abscess appeared on the dorsum of the penis, which discharged freely through a small opening. Another abscess soon formed at about an inch from the first, and it was evident that a sinus was burrowing between the two. The glands in both groins were indurated but not enlarged. A Wassermann was negative. Mr. de Meric freely opened the sinus between the abscesses, passing first a director, and slitting up with a curved, sharp-pointed bistoury.

Mr. de Méric said the case was interesting in view of what might occur in the subsequent history. Here was a man with a long prepuce, which, however, he could easily get back before the appearance of the chancres. These last, from the patient's account, had shown themselves four days after connection. The glands in both groins were indurated but not enlarged; they felt like marbles. There was no eruption, no sore throat, no mucous patches on the lips, tongue, etc. Yet the chancres, as far as one could see them on the inner side of the prepuce, looked syphilitic, though the induration was more of the doughy kind felt in simple sores than the absolute or even the parchment-like hardness of real syphilitic chancres. A Wassermann was done in the hospital by Dr. Eckenstein and the result was negative; for this reason, Mr. de Méric pointed out, he refrained from slitting up the foreskin in order to deal locally with the sores; this he would at once have done had the Wassermann been positive. The negative Wassermann pointed to the sores being simple and not syphilitic, therefore any slitting up of the foreskin would have been followed by the incision taking on the form of a simple (or what in England is misnamed a soft) sore, and by the whole of the foreskin being converted into one large sore. With reference to the negative Wassermann, it might be said that since the patient had been in the hospital he had been taking proto-iodide of mercury pills, gr. ½, morning and evening, but taking these pills for a week or ten days was hardly sufficient to convert a positive into a negative Wassermann, supposing the chancres to have been syphilitic on admission. The abscesses and fistulæ were on the dorsum of the penis, and as far as possible every precaution was taken to prevent any discharge from the sores under the prepuce coming into contact with the small incision connecting the fistulæ; still such isolation of the dorsum of the penis would be very difficult in view of the constant change of the dressings. At any rate, the opening up of the fistulæ was an absolute necessity, in spite of the negative Wassermann, and, assuming that the incision did become contaminated, which was very likely, the diagnosis would be made quite clear according to whether further sores developed on the dorsal incision or not.

Four days after operation the incision between the abscesses had formed a large keloid-looking sore, thus proving as far as possible that the sores under the prepuce were simple or soft and not syphilitic; if the sores had been of the latter variety the incision would have remained a simple incision and no sore would have formed on it, for, as Mr. de Méric pointed out, the discharge from a syphilitic chancre when inoculated on the same individual produced no result, whilst the pus from simple or soft sores when inoculated on the same person gives rise to similar or more intense sores, which very often take on themselves a keloid character. This last characteristic Mr. de Méric said he had frequently seen many years ago when he carried out a series of experiments, the result of which was invariably correct; in those days he could only be certain of this by the advent or the non-advent of the secondary symptoms, but at present we have the Wassermann reaction to guide us, especially in those cases in which it would be an advantage to slit up the foreskin or to perform circumcision, but a negative Wassermann would negative any such operation. Many surgeons say that a negative Wassermann should not be always regarded as final, especially when the patient has undergone mercurial treatment, if only for a short time; however, the present case proves that a negative Wassermann may be perfectly correct, even under such circumstances.

SPECIAL REPORTS.

THE ANNUAL OPHTHALMIC CONGRESS AT OXFORD.

The annual Ophthalmological Congress was held at Oxford on Thursday and Friday, July 9th and 10th, under the mastership of Mr. R. W. Doyne. It was attended by rather more than the usual number of members, and proved to be one of the most successful yet held. The addresses given in the mornings were extremely interesting, and led to some spirited discussions. On Thursday afternoon operations were demonstrated by several surgeons at the Eye Hospital, and some cases of interest were shown.

On Friday afternoon a discussion was held on "The Question of Compensation in Injuries to the Eye." It was opened by Dr. William Robinson, of Sunderland, Dr. Frank Shufflebotham, of Newcastle-under-Lyme, speaking next. Messrs. MacNab, Jameson Evans, Gray Clegg, Pooley, and Coulter also spoke.

The annual dinner of the Congress was held in the Hall of Keble College on Thursday night, Professor Arthur Thomson being in the chair. After the dinner a discussion on the future of the Congress was held, when it was decided, owing to the success of the meetings in the past, to continue to carry them on in the same way as before.

This year the addresses, the scientific and commercial museums were all held in the Department of Human Anatomy, kindly lent by Professor Arthur

Thomson, the fact of them all being under one roof being a great improvement on the previous arrangement.

Amongst the distinguished visitors to the Congress from abroad were Dr. Casey Wood, Dr. Wendell Reder, Dr. Brown, and Dr. Gifford from the United States, and Dr. Darier from Paris.

The meeting, which terminated on Friday night with the usual smoking concert, reflects great credit on the Master and the energetic Secretary, Mr. Sydney Stephenson.

ROYAL COMMISSION ON VENEREAL DISEASES.

At the forty-sixth meeting of the Royal Commission, evidence was given by Dr. Svend Lomholt, Surgeon to the Municipal Hospital at Copenhagen, regarding the methods adopted for dealing with venereal diseases in Denmark. The principle has been to provide free treatment and to render it as easily accessible as possible, and in order to make this right of practical value an Act was passed in 1906 which contained a provision compelling the municipalities to arrange easy access for free consultation and treatment. Since that date, especially in Copenhagen, in which town probably 80 per cent. of the disease occurring in the country is to be found, a great deal has been done. Very complete hospital facilities have been provided, and in addition there are three public consulting rooms for contagious and venereal diseases at one of which evening consultations are held.

Twelve municipal doctors (two of whom are women) have also been appointed for the purpose of giving free treatment of venereal diseases. The experience has been that patients have shown themselves very ready to take advantage of these facilities. In some directions compulsory measures have been adopted. A doctor treating a case of venereal disease is required to point out all the consequences of the disease, and there is also provision for securing that persons suffering from venereal disease shall continue their treatment. Dr. Lomholt thought that this latter provision had been very useful.

A system of confidential notification of venereal diseases is in force. The names and addresses of the patients are not notified, and the cases are identified only by numbers; the notification is consequently only of use for statistical purposes. Dr. Lomholt has made a critical examination of the published figures, and showed that they could only be accepted with a good deal of reserve.

Mr. Charters Symonds, Consulting Surgeon at Guy's Hospital, giving evidence, laid stress on the need for largely increasing the means available for treating venereal diseases. He thought that existing institutions should be utilised as far as possible, and that these, together with any additional provision which might be made should be linked up with Insurance Committee areas and with panel doctors. Evening clinics should be provided at every centre. It would be necessary that a scheme of this kind should receive adequate subsidies from the State.

Mr. Symonds advocated the formation of a National Society, which should supervise the selection of lecturers, the scope of teaching and the publication of books and pamphlets with a view to the education of the public respecting venereal disease. Such a society, he thought, should be voluntary and should be ready to assist the Government in any measure of which the Government approved. He would propose that the Royal Society of Medicine should nominate persons to serve as a committee of this National Society and that a definite sum of public money should be placed in the hands of that committee.

With regard to the question of notification, Mr. Symonds said that the experience of other countries showed that in the present state of mind of the people notification was ineffective. It led to greater concealment of disease and tended to drive sufferers to quack treatment.

Mr. Arthur J. Evans, Honorary Surgeon to the Liverpool Stanley Hospital, was of opinion that if better facilities for treating venereal diseases could be provided at the general hospitals the spread of infection would be reduced. The establishment of such a clinic to a hospital should, he thought, be financed and controlled by the State and not by the committee representative of the charitable public. He thought that in Poor-law patients the general percentage of the later manifestations was very high. In the male sex this was exceedingly striking, and in a larger number of cases permanent incapability of earning a livelihood was produced; many also were beyond any hope of benefit even by modern treatment. Unfortunately a great difficulty in regard to Poor-law patients arose from the fact that there was no law to compel them to remain till properly cured. Patients frequently left the hospital while still in an infectious state.

As medical adviser to an important shipping company, Mr. Evans said that it was his experience that a great deal of venereal disease was introduced from abroad, and it was his opinion that this continuous introduction of disease into this country should undoubtedly be brought under control. He recommended that the Board of Trade should take steps to warn and explain to seamen and others the dangers of contracting venereal disease and that of infecting others of the community. The importation of disease would, he thought, be greatly lessened if sailors were aware of the risks encountered in foreign ports, and especially in the tropics.

CORRESPONDENCE.

FROM OUR SPECIAL CORRESPONDENTS ABROAD.

GERMANY.

Berlin, July 18th, 1914.

At the Hufelandische Gesellschaft, Hr. Peltesohn discussed the

TREATMENT OF TUBERCULOUS BONE AND JOINT DISEASES AND THEIR SEQUELÆ.

He was altogether in favour of conservative treatment of such cases. Orthopædic measures were supplemented by heliotherapeutics, which was easily carried out in that locality during the summer period. Tuberculous disease of bones was not suitable for treatment in city hospitals or cripples' homes, but in the open air. For the poorer classes of patients he recommended arbour colonies or arrangements of that sort, where sunbaths could be made use of. Treated in that way tuberculous fistulæ that had existed for years had cast off their sequestra spontaneously and healed up. Where the disease was only in one part and easily accessible, and the neighbouring joint not yet attacked, it should be radically removed. The speaker showed three cases of deep-seated disease of the spine in which he had strengthened the spine by transplantation of portions of tibia after the method of Albee. He was not yet, however, in a position to give a definite opinion as to the value of that form of treatment. He then showed two cases in which he had performed subcutaneous femurosteotomy for serious ankylosis of the femur after coxitis; the functional result had been remarkably successful.

At the Gesellschaft f. Geburtshilfe und Gynækologie, Hr. Franz communicated a note on

CÆSAREAN SECTION.

The speaker said he no longer practised extraperitoneal Cæsarean section or symphysiotomy. He had had no satisfactory experience with the former, and the operation complicated matters very seriously. All that was wanted could be done with the intraperitoneal method, but this should be made as simple as possible. In three years and a half he had operated in 120 cases. The *technique* had been similar in all of them. The incision, made longitudinally between the symphysis and umbilicus, was as small as possible. The uterus was also incised in the same direction, without any pushing down of the bladder. The head was extracted with forceps. After delivery a small speculum was placed in the upper angle of the wound in order to shut off the abdominal cavity upwards. Suture was with catgut and was continuous. First the muscle and then the peritoneum were sutured. Rupture occurred in two cases, in which it was later ascertained that the mucous membrane penetrated deeply into the muscular structures. In both cases the rent had taken place at the side of the incision. The operations had not been performed in the high position. The indications were: five times cysts, one retroversion with incarceration, one recent fracture of the thigh, one a primipara æt. 52, one for prolapse, three placenta prævia. Placenta prævia in a primipara should always be treated by Cæsarean section; it was a life-saving operation. One hundred and nineteen patients had contracted pelvis. The dimensions were reckoned from the vera. Practically, it sufficed to measure the diagonal and subtract 2 c.m. To fix absolute indications was superfluous; a relative indication was to be drawn from the course of the labour itself. Except in two cases the head presented. The duration of the labour was important; 53 patients had been in labour over 20 hours. The membranes had already ruptured. In 64 of the cases they only ruptured during the course of the operation. All had been repeatedly examined before an operation was begun. In 24 cases the temperature rose to between 37.5° and 38.2°. The results had been three deaths—(1) a vi.-para, in whom an attempt to deliver with forceps had already been made. In spite of drainage, sepsis set in after seven days. The operation had had to be a Porro. (2) VI.-para, a quite straightforward case, and the cause of death could not be ascertained; there was, however, defect in both ventricles of the heart. (3) Died ten weeks later from nephritis and peritonitis. The cause was pyosalpinx that had burst. All the children were born alive, but three died afterwards. Everything that was required could be done by simple Cæsarean section, and from the present standpoint the indications could be still further widened. It was a form of operation that did not require such a very experienced hand.

Hr. Mackenrodt preferred the operation described, but he made a transverse incision and united uterine peritoneum with fine forceps. He was not quite so radical, and would not operate with a conjugate over 7 c.m.

Hr. Strassmann operated with the patient in a half-sitting position. For that lumbar anæsthesia was necessary. He would not use forceps for extraction. He had performed the operation three times for placenta prævia; at the same time he would restrict the indications as much as possible. He was still in favour of prophylactic turning.

Hr. Bumm would not give up symphysiotomy. Injury of adjoining parts must be avoided, but pubotomy in primiparæ should be given up. Two years before he had advocated extra-peritoneal Cæsarean section. A definite decision was not possible. In 116 cases he had operated extra-peritoneally in 78, with six deaths. He operated also in eclampsia; two of these died. Of the pure extra-peritoneal operation cases only one had died, on the 22nd day after the operation; the patient had purulent salpingitis. He considered the extra-peritoneal operation as the better one as regarded later results.

Hr. Franz, in reply, did not think prophylactic turning was often called for. He attached no value to forceps on the peritoneal edges. In doubtful cases he waited. Application of the forceps to the head was very easy and simplified the operation considerably. It was also aseptic. Only one suture was applied, which was immediately dropped.

AUSTRIA.

Vienna, July 18th, 1914.

Tenth Congress of the Deutscher Röntgen-Gesellschaft.—(*Continued.*)

III.—Therapeutic Application: Superficial and Deep.

Dr. Heineke (Leipzig) made a communication which dealt with the subject of "The Extra-biological Effects of the Röntgen-rays." (1) The effects of the rays on living cells are very different according to the degree of sensibility present in those structures. For instance, in the case of lymphocytes, exposure to the rays produced immediate destruction of the nucleus, while epithelial and embryonic gland cells displayed under the same conditions of exposure a slow modification of structure, which commenced after the lapse of a certain period of latency. (2) The period of latency has not yet been definitely defined. It has been shown by Hertwig and Wassermann that the cells may proceed to division without actually dying. This process of sterilisation of the cells throws light on the period of latency, after the close of which a defect of tissue structure must be present, although not evidenced by the production of new cells. (3) The various modes of reaction of tumours display themselves according to the varieties of sensibility of the normal cells of the tissues from which they have been evolved.

Dr. F. Heimann (Breslau): On "The Influence of various Filtering Media in the Mesothorium Radiation of the Ovary of the Rabbit." The author had employed a filter constructed of a thickness of 1 mm. of brass, 3 mm. of aluminium, and 3 mm. of lead. He had also applied the rays through a filter of 0.2 mm. of silver. It was only with the use of a lead filter that the destructive effect on the ovary was displayed, and the same feature was manifested in clinical research. In the case of cancer a rapid effect was produced on the epithelium.

Dr. Wolff (Berlin) communicated the results of his researches on bacteria, which had given purely negative results. He had also failed to obtain any therapeutic effects in his experiments on tuberculosis.

Dr. Friedländer (Schöneberg) found the effects of radiation of the testicles of the guinea-pig as powerful with small doses as with large ones.

Dr. Evler (Berlin) saw curative results in cases of suppuration, which could be traced through the progress of fermentative action and increased cellular function.

Dr. Eberlein referred to the difference which he had noticed between the effects of radiation treatment of bothryomycosis in living animals and their wholly negative influence on the parasite in the test-tube.

Dr. Hasmann (Berlin) stated that a more positive result was obtained when hard glass was used.

Dr. Eymer (Heidelberg) had also obtained appreciable effects *in vitro*.

Dr. Löwenthal (Brunswick): "On Radiation Therapy with the Use of Heavy Filters." Up to the present it had been impossible to produce rays corresponding to the gamma-rays with the Röntgen tubes. The author had, however, succeeded in procuring, with the help of a 1—2 mm. lead filter, rays of that character. He had found that after passage through lead a portion of the rays were absorbed by the tissues of the body. Of the rays which passed through 1 mm. of zinc no less than 70 per cent. were afterwards absorbed in passing through the organism. By filtration through 1 mm. of lead a sufficiently powerful radiation was obtained which could be applied without injuring the skin. Behind the filter were found (1) primary rays, (2) characteristic secondary rays, and (3) a special form of radiation similar in quality to the cathode-rays.

Dr. Pagenstecher (Brunswick): On "The Continued Treatment with Röntgen-rays." Comparatively little effect had hitherto been recorded of their use in the treatment of deep-seated tumours. Intensive radiations had been employed, with brief periods of exposure, so that only large doses were discussed. Then came the introduction of long pauses after the dangers of burn became recognised. But the tumour found time during those pauses to recover its activity of growth, and proceed to further expansion. In order to obviate such drawbacks, the author substituted, for the hard 3 mm. aluminium filter, either one of ¼—1 mm. of lead or one of 2 mm. of copper. With these no injury to the skin had been observed, even after radiation of the same cutaneous area during a total period of 120 hours. In order to facilitate the application of those long periods of radiation—of one or two hours daily—Hrn. Pagenstecher and Löwenthal had prepared a filter-chest which was furnished with dense filters through which the rays were allowed to reach from four to six persons at the same time. The author had also had a tube constructed which was furnished with an internal filter. In the intervals of the Röntgen-radiation small quantities of radium were utilised. Dr. Hessmann (Berlin) remarked that when using a brass filter of 1 mm. thickness, the exposure must be four times as long as with a 3 mm. aluminium one in order to provide a corresponding dose.

Dr. Hessmann (Berlin) then made a communication on: "The Röntgen-ray Treatment of Malignant Tumours with Massive Doses," with special regard to the use of the Röntgen-rays in the radiation treatment of carcinoma. He had used large—so-called massive—doses, and had obtained favourable results in 50 per cent. of his cases. In cases of tumours of the larynx or pharynx he combined the Röntgen and radium rays. With the administration of massive doses a general tonic treatment must be adopted at the same time. Cases of tumours covered with the skin were treated with only 4 s.n., through a 3 m.m. aluminium screen. Softening tumours which were already breaking down should be treated with canalisation. After the use of 4 s.n. he had seen reaction of the first degree. On treating tumours without any cutaneous investment he employed various filters. In the usual post-operative radiation therapy, special caution must be taken in most cases of anæmic patients. In contrast with the procedure in surface therapy, an interval of six weeks must be allowed. In the percutaneous treatment of gastric carcinoma a 5 mm. aluminium filter should be employed. He recommended the preparation of gastric tumours for radiation treatment by preliminary surgical procedure.

Dr. Wichmann (Hamburg) discussed the "Value of the Röntgen-rays in the Radiation Treatment of Carcinoma." The effectiveness of the Röntgen-rays in the treatment of carcinoma is hedged all round with obstructions: surgical operation, mixed infection, refractory or relatively unfavourable relations or circumstances of the growth, and so on. The softer rays are suited to the treatment of some cases of carcinoma, the harder to others. An unfavourable influence may be produced by large doses of the rays, as well as by small ones; such may even follow the dosage which is in itself the suitable one. Defective radio-sensibility can in some cases be reinforced by the use of ultra-violet rays, electro-coagulation, removal of the carcinomatous border and base of the tumour. Many tumours are distinctively influenced by a combination of several radiant factors. If a depth of more than 2 cm. has to be reached, the Röntgen-rays must usually be reinforced with radium.

Dr. Paul Krause (Berlin): ""The Röntgen-ray Treatment of Mammary Carcinoma." On a basis of vast material, the author discussed the therapy of mammary carcinoma. He distinguished: Radiation without operation, post-operative radiation, and radiation of recurrent growths. Exclusive radiation treatment gives a very unfavourable prognosis. Good results were attained only in cases of very small tumours and spare patients, or in ulcerated ones without considerable glandular metastasis. Recurrence with glandular metastases require a favourable field, with direct radiation; and perseverance on the part of the surgeon, with endurance on that of the patient. In such cases shrivelling or connective-tissue degeneration was nearly always produced. In addition to the local radiation, prophylaxis of the thorax and cervical zone was necessary, so that when all diseased tissues had to be removed the open wound should be subjected to the radiations and afterwards united. In other cases the radiation therapy was commenced ten days after the operation, and proceeded with in monthly stages for a year. He advocated large areas of exposure; four only were taken on the neck, and the only parts covered were the face, scalp, and abdomen. As the recurrence nearly always took place in the subcutaneous connective tissue, an unfiltered, very hard light was requisite—of 14 or 15 w.e. The results were then very favourable; he had always succeeded in preventing recurrence.

Dr. Manfred Fránkel (Charlottenburg): "The Röntgen-ray Treatment of Pulmonary Tuberculosis." He had obtained favourable results in sixty-four of eighty cases. The improvement was both general and local. Commencing increase of the fever was a favourable prognostic symptom. Tuberculous lung tissue is more sensitive to the rays than normal. Tuberculous glands react like the ovary; with formation of connective tissue, cicatricial contraction, and consequent encapsuling of the pathological focus. Vomicæ become thick shells, and pleural thickenings and adhesions are broken down. He recommended the use of large doses of the rays in every case, and exposure of the whole thorax.

Dr. Eckstein (Berlin): "On some Unrecognised Effects of the Röntgen-rays, and their Therapeutic Value." During the past five years he had obtained relief of pains of traumatic origin by exposure to the Röntgen-rays—for example, after contusion. The relief was generally instantaneous, and continued for some hours, frequently for days, and occasionally for even a week. He usually applied small doses; the effect appeared after fifteen seconds, and increased from minute to minute. He used hard and medium-hard tubes, and applied—without filtering—0.4—2 m.a., to a cutaneous area at a focal distance of 15—30 c.m., for a period of three to seven minutes. He had also applied the rays for the after-pains of operations, and for spastic colitis.

Dr. Fritzell Meyer (Berlin): "The Use of Filtered Röntgen-rays in Chronic Eczema." He had obtained favourable results in fifteen cases with a 1 mm. aluminium filter. At each *séance* ½ E.D. was administered, till 2 E.D. had been reached; then a pause of three weeks was allowed.

(*To be continued.*)

FROM OUR SPECIAL CORRESPONDENTS AT HOME.

SCOTLAND.

Public Health Congress in Edinburgh.

At the Congress of the Royal Institute of Public Health, which was held in Edinburgh last week, the proceedings were of such varied interest, and covered so large a field of work, that it is impossible to do more than attempt, in a general way, to give some account of the principal communications. In the State Insurance Section, the President, Dr. Leslie Mackenzie, stated as the predominant problems in State medicine for the next ten years tuberculosis, housing, medical inspection and prenatal care of children, milk supply, carriers of infection, venereal disease, and the organisation of research. In the subsequent proceedings of the section many of these were touched upon. Dr. Mearns Fraser, Portsmouth, in a paper on combating cancer, emphasised the fact that at present the chief, if not the only means of fighting the disease was to inform the public as to its nature, so that it might be removed early. Mr. Corbett Smith, introducing the discussion on sexual diseases, urged that education was the only solution, and that instruction must first be given to those who had to carry on the work of education. Frank speaking and avoidance of false modesty and hypocrisy were the first essentials.

Tuberculosis.

In this section the discussion on tuberculosis centred chiefly round such factors as housing, and in a paper by Dr. Maxwell Williamson the great importance of dealing with slum property was emphasised. In the absence of such preventive measures as the checking of overcrowding, sanatoria, in the speaker's opinion, could not produce much benefit. Dr. Alexander James was an exponent of the less orthodox view that tuberculosis was essentially a disease produced by the conditions under which people lived, and that Koch's bacillus was not a specific entity, but rather the virulent transformation of a harmless, perhaps useful, organism, as the result of environment. In the pathological and bacteriological section, water-borne disease was one of the chief subjects discussed. In the unavoidable absence of the President, Professor James Ritchie, his opening address was read by Professor Beattie (Liverpool). In this address the occasional risk of water-borne typhoid was considered, and the value of estimations of coliform bacilli in water supplies was urged, but in estimating the meaning of the test it was necessary to consider the source of the water in relation to the possibility of contamination by animals. The value of the incubation test in the examination of water was brought up by Professor Délépine (Manchester).

Child Welfare.

The proceedings of the Child Welfare Section were opened by Dr. John Thomson's Presidential Address, in which the necessity for further legal powers for dealing with illegitimate children and preventing them from swelling the ranks of the criminal and pauper classes was insisted on. Dr. David Forsyth opened the discussion on the care of children under school age, in which he spoke of the pressing need of practical training of girls in their responsibilities as mothers. The babies whose mothers had to go out to work might be utilised in the practical training of girls by opening day nurseries near schools. Papers in connection with this subject were also read by Mrs. Leslie Mackenzie, Dr. A. K. Chalmer, Dr. Ballantyne, Dr. Mary Barclay, Miss Isobel Morris (of the "Duty and Discipline Movement"), and a number of others.

National Insurance and Public Health.

In the second day's proceedings the time of the State Medicine Section was occupied by the discussion of a paper by Dr. McVail on National Insurance and Public Health administration, in which three by-products of the Act were specially mentioned—first, the accumulation of sickness records; second, the creation of a fund for research; and third, the Highlands and Islands medical grant. Dr. Dunlop read a paper on the "expectation of life" judged from the mortality statistics of various Scottish towns. The range was very great; at birth the male expectation of life was 54.1 years in Kilmarnock and only 43.6 in Govan; at 25 it was 40.5 in Perth, against 38.9 in Govan.

The Milk Supply and the Housing Problem again furnished matter for discussion in this Section. The most interesting and important papers, however, were those read on tuberculosis, both in the Tuberculosis Section and in the joint meeting of the Child Welfare and Pathological Sections. In the first of these the administrative aspects of the problem were discussed from the points of view of different countries and localities by Sir Robert Philip (President), Mr. Warburg and Dr. Halliday Sutherland (London), Dr. Bowditch (New York), Professor Haussen (Bergen) and Professor Rist (Paris), and many others. In the joint Section interest centred round the incidence of the disease in children and the milk supply. Professor v. Pirquet said that in Vienna infection through the lungs was the common source, and that in Austria and Germany cow's milk played no part. His conclusions, briefly, were: That for the first year of life respiratory was by far (95 per cent.) the most frequent; enterogenous infection (1-2 per cent.) was not important, and that prophylaxis had chiefly to do with the separation of the nursling from coughing adults. In Austria, he said, milk was invariably boiled before being used.

Professor Sims Woodhead's paper referred to the work of the Royal Commission and that recently done in Edinburgh as conclusive proof of the gravity of the danger to infants of the milk from tuberculous cattle. Dr. Haussen (Bergen), thought that infection from adults was the chief source of infection. Dr. Shennan emphasised what is constantly being forgotten—viz., that each locality must find out its own facts for itself. He would expect that in Edinburgh, where there was so much bovine infection of joints, bones, and glands, there would also be a large proportion of bovine lung infections. This, however, had not been proved experimentally. Dr. McNeil showed that the results of the von Pirquet test were quite different in Edinburgh from Vienna, the incidence of infection being much higher during the first four years of life, and lower during the later years of childhood. In Vienna the positive reactions during the first year are 5 per cent., whereas in Edinburgh they are 15 per cent., rising to 45 per cent. by the fourth year.

All the subsequent British speakers—Professor Délépine, Mr. Stiles, Dr. Mitchell, and Mr. Fraser, were strong in insisting on the real risks of milk infection and its extent in this country. Mr. Stiles said that the small amount of surgical tuberculosis in Vienna was due to the milk being sterilised. Dr. Mitchell quoted 80 consecutive cases under 12 years of age in which 71 bovine and nine human infections were found. Of 406 samples of milk 82 contained tubercle bacilli.

In the Industrial Hygiene Section,

The Injurious Effects of Soaps" (Dr. F. Gardiner), "Dust and Tuberculosis" (Dr. Beattie), "The Electrolytic Treatment of Lead Poisoning" (Mr. Clague), "The Campaign against Mosquitos" (Surgeon D. H. C. Given), and other subjects, were discussed.

In addition to the sectional meetings, an exhibition of appliances connected with child welfare was arranged, at which various demonstrations on the diseases of children, nursing, massage, hygiene, etc., were given. The exhibition was largely taken advantage of not only by members, but by school inspectors, health visitors, and parents of all ranks.

After the first day's proceedings the members were entertained at a reception by the Lord Provost in the Royal Scottish Museum; on the next evening the Congress Dinner was held, and on Saturday the Royal College of Physicians gave a dinner to some of the members. A number of garden parties and excursions were also arranged, including a garden party at Hopeton House by the Marquis of Linlithgow.

L.G.B. to the Rescue.

In reference to the resolution recently come to by Ayr Burgh Insurance Committee to bring home, owing to lack of funds, their phthisis patients presently being treated in sanatoria, it appears that these patients are nine in number. The matter afterwards came under the notice of the Ayr Town Council, who entered into communication with the Local Government Board and obtained an interview with them. The Town Clerk subsequently received a letter from the Board in which they stated that, where Insurance Committees from want of funds or any other reason discontinued the treatment of insured persons, it fell to the local authority to treat these cases if further treatment was necessary, and that it rested with the local authority to determine the nature of the treatment, and in doing so they ought to be guided by the medical officer of health. In the view of the Board it was advisable that the nine patients in question should not be removed until it was determined what further treatment was to be given to them.

New Professor of Chemistry at Aberdeen.

Mr. Frederick Soddy, M.A., F.R.S., Lecturer on Physical Chemistry in Glasgow University, has been appointed to the Chair of Chemistry in Aberdeen University, formerly held by Professor Japp. Mr. Soddy, who is 36 years of age, has already had a brilliant career. While Demonstrator in the Chemical Laboratory at McGill University, Montreal, from 1900 to 1903, he carried on a combined chemical and physical investigation of radio-active phenomena, for the most part in conjunction with Professor Rutherford, to whom he owes his initiation in this subject. The result of this joint work was the general interpretation of radio-activity by the theory that the atoms of the radio elements are undergoing spontaneous disintegration. In 1903 he continued the work with Sir William Ramsay in London. They isolated the radium emanation in a pure state, and demonstrated spectroscopically the generation from it of the element helium. During this time Mr. Soddy lectured on radio-activity in the University College, London, and the Cavendish Laboratory, Cambridge. In 1904 he gave a course of University extension lectures in Western Australia on modern advances in the physical sciences.

Unsuccessful Action for Damages.

The case in which a lady patient sued Dr. A.

Lamont, Esslemont, Chryston, Lanarkshire, for £500 damages, was tried in the Court of Session last week before Lord Anderson and a jury. The pursuer had cut her left little finger when pruning in the garden, and was treated by the defender. In consequence of alleged fault or negligence upon the defender's part in his treatment, the pursuer had afterwards to get her finger amputated. The defender denied that he had been guilty of fault or negligence. The jury, after an absense of an hour and three-quarters, returned a verdict for the defender.

New Lectureship at Aberdeen.

Mr. John Parlane Kinloch, M.D., D.P.H., has been appointed to the new Lectureship on Public Health in Aberdeen University, out of six applicants. He is 28 years of age, and graduated M.D. at Glasgow University with commendation, having previously qualified there in 1909; and he took the diploma in Public Health at Cambridge, with distinction in sanitary science. Dr. Kinloch has had considerable teaching experience in Ruchill Fever Hospital, Glasgow, and as Assistant Lecturer on Public Health in the Anderson College of Medicine, Glasgow. His research work has included investigations of the biological properties of the air, the treatment of tuberculosis, and the origin of return cases of scarlet fever.

Medical Service in Cowal.

Dr. M'Intyre, Innellan, and Dr. Edgar, Lochgoilhead, were among those who attended a conference at Dunoon between the Highlands and Islands Medical Service Board and representatives of public bodies. Small hospitals throughout the district were suggested, but the influential landowners present favoured the alternative of a powerful motor ambulance in connection with Dunoon Combination Hospital, which can take more patients.

LETTERS TO THE EDITOR.

[We do not hold ourselves responsible for the opinions expressed by our Correspondents.]

"THE BRITISH PHARMACOPŒIA—1914."

To the Editor of The Medical Press and Circular.

Dear Sir,—At its meeting to-day the Executive Committee of the General Medical Council formally adopted as "The British Pharmacopœia, 1914," the completed draft submitted by the Pharmacopœia Committee. It was resolved that copies, in advance of publication, should be made accessible to the public for inspection at the offices of the Council in London, Edinburgh, and Dublin on Monday, August 10th, at 10 a.m., and thereafter from 10 a.m. to 4 p.m., and that a copy for review should on the same day be placed in the hands of the editor of each of the medical and pharmaceutical journals on the Registrar's list.

The official publication of the new "British Pharmacopœia" will be made by notice in the Gazette on Friday, October 9th, on which day copies will be on sale by the publishers, Messrs. Constable and Co., Ltd., 10, Orange Street, Leicester Square, W.C.

I am, Sir, yours truly,

Norman C. King, Registrar.

Offices of the General Council of Medical Education and Registration, London, W., July 13th, 1914.

THE DECAY OF FRANCE.

To the Editor of The Medical Press and Circular.

Sir,—The crude details of politics, the mere play of parties, seem to lie far outside the scope of medical journalism, but when physiological factors make up great part of the complex system of causation whereby the destinies of nations are moulded, the subject becomes of absorbing interest to the whole scientific world and the journals that represent it. If there are at present any peoples showing signs of decay, it behoves the nations around to inquire into the phenomena, and to avoid the diseases of the body politic that appear to threaten or already seriously affect their neighbours. With regard to our fast friends, the French, the policy of international pinpricks has long given way to the *entente;* the virulent hatred during the Boer War and the episode of Fashoda have been quite forgotten, and the two nations mutually vie not only in the paying of compliments, but in the avoidance of discussion of any theme capable of ruffling the feelings even of the most patriotically hyperæsthetic among their citizens. The newspapers in their "leading" articles merely help the public on the way the public want to go, and avoid editorially every topic that might prove unpopular among their customers. Hence the signs of the decay of France that have really been gradually becoming more and more prominent ever since the establishment of the empire of Napoleon the Third, have in late years been more and more left in the background by the most powerful of our public teachers. Fifty years ago we began to adopt the custom which is bringing ruin upon our neighbours, and which is among them too far advanced to be curable save by some prodigious patriotic and spiritual revival. This question has so far excited no adequate attention among our leading statesmen, nor aroused any interest among practical sociologists. In presence of the mass of incontrovertible facts regarding the decay of their people constantly brought to the front by French men of letters, men of science and statesmen, it is astonishing to notice the frequent reference to a "French Renascence" by British public men and the Press. If a newspaper publishes startling statements by its French correspondents, it never comments upon them in its editorial columns, nor does it allude to the solid fact that we have advanced far along the road to disaster which our friends have so long pursued. A most remarkable illustration of the indifference of the British Press was manifested during the Paris Hygienic Congress in May, 1913. The question was there once more discussed from the standpoint of the statesman by two distinguished ex-Prime Ministers. M. Léon Bourgeois dwelt upon the danger from foreign attack due to the comparative paucity of their total population and the continuously progressive decline in the birth-rate. He pointed out that a century ago France contained 16 per cent. of the population of Europe, whilst to-day she has only 9 per cent. The excess of births over deaths during the period 1906 to 1910 was lowered in France by 50 per cent., while it remained practically stationary in neighbouring countries. In 1911 the deaths exceeded the births by 34,889, while the number of births was the lowest ever recorded. M. Ribot, after adopting and emphasising all his confrère's statements, and dwelling upon the fact that the French death-rate was then, and had long been much higher than that of their Northern neighbours, ended his speech with the following words:—"This country is sick, and it ought to be proclaimed aloud. The French race is withering. The people must be informed of the peril by which it is menaced. All the efforts of the Legislature and of the Government must be concentrated upon grappling with this peril." This profoundly impressive confession and appeal was entirely ignored by our home newspapers, and this has been the fate of recent reports of an equally alarming kind. The *Times* of June 26th last contained a telegram from its Paris correspondent on the still alarming decline in the birth-rate. The number of births last year was 745,539, against 750,651 in the year before; the lowest figure ever shown with the exception of 1911. In less than 40 years the birth-rate has diminished by 200,000 a year. The statistics become more and more disquieting when compared with those of neighbouring countries. Germany has at least 30,000,000 more people than France. If, like France, she should impose, instead of two years, a three years military service, she might make it virtually impossible for France to defend herself even with the help of her allies. It is now seriously proposed to displace the 1,500,000 of foreign European settlers in France by labour from the Kabyle and other tribes in the French African colonies. It is also seriously proposed to augment the army in France from similar sources. These ideas are set out at length in a dispatch from the *Times* correspondent in its issue of Monday last, July 13th. The former idea is perhaps practicable; it is at least extremely significant. The second suggestion is even more significant, albeit grotesquely absurd, in view of the fact that the inhabitants of subtropical and tropical Africa would die literally like flies in a European winter campaign. France is surely presenting us with an object lesson to which we cannot afford to shut our eyes. Our imperial responsibilities depending for their fulfilment on the numbers and quality of our people, are incalculably vaster than hers. It is a big subject. In my letters so far I have barely opened it, and although ready to go on, I am equally ready to stop at the smallest hint from you.

I am, Sir, yours truly,
Henry Sewill.

The Old Rosery,
Earlswood Common.
July 17th, 1914.

OBITUARY.

SIR CHRISTOPHER NIXON.

It is with deep regret that we have to record the death of Sir Christopher John Dixon, Bart., which took place on Sunday last at his residence, in Dublin. The deceased physician was born on June 29th, 1849, being the son of Mr. C. William Nixon and Mary Anna, daughter of Mr. W. J. Hackett. He was educated at Trinity College, Dublin, the Cecilia Street School of Medicine, and in Paris. He qualified as L.R.C.S.I. in 1868, becoming M.D.Dub. in 1878. He was elected F.R.C.P.I. in 1876, and received the M.D., R.U.I. (*honoris causa*) in 1885. Sir Christopher Nixon was well known to the medical profession in Ireland, having occupied the highest position of President of the Royal College of Physicians of Ireland, as well as having been Vice-Chancellor, a member of the Senate, and a representative on the General Medical Council of the National University of Ireland, Senior Physician at the Mater Misericordiæ Hospital, a Fellow (late President of the Pathological Section) of the Royal Academy of Medicine of Ireland, Professor of the Practice of Medicine in the Catholic University, Visiting Physician to the Central Asylum, Dundrum, and St. Patrick's College, Maynooth, and Consulting Physician in Lunacy to the High Court of Chancery in Ireland. He was also the first President of the Royal Veterinary College of Ireland, which he took great interest in establishing.

Sir Christopher Nixon, who was knighted in 1895, received his baronetcy in 1906, married in 1872 Mary Agnes, daughter of Dominick Edward Blake, by whom he leaves one son and three daughters.

Among Sir Christopher's contributions to medical literature are a "Hand-book of Hospital Practice and Physical Diagnosis," 1888; "Double Facial Paralysis, with some Remarks on the Nerves of Taste" (*Dublin Journal of Medical Science*, 1876), "Does Reflex Paralysis Occur?" (1884), and the "Cardiac Murmurs of the Mitral Area" (1886). He was a man of considerable activities and took a prominent part in the long agitation for the settlement of the Catholic University grievance

A correspondent to the *Times* contributes the following appreciation of Sir Christopher Nixon:—"Ever keen and sympathetic as a practitioner, his remarkable powers of diagnosis in seeing through and through a patient's ailments almost at a glance, won for him, by that instinctive feeling to which human nature, particularly human nature in the helplessness of illness, so readily responds, that implicit confidence which is so often the keynote of success in the medical profession. A physician of exceptional ability and skill, he rapidly won his way to the foremost place amongst the men of his time, and after holding many important positions in Ireland was made a Privy Councillor amongst the New Year honours of this year. As a member of the General Medical Council he came to London regularly to attend its meetings, and was well known in Liberal circles of London society. A man of many parts, energy and ability, he was regarded by his pupils and intimate friends—not all of them of his own generation—as gifted with a genius which has given in practice to humanity what might have been intended for the library and lecture-room of the Academy."

REVIEWS OF BOOKS.

FIRST HINTS IN DENTISTRY. (*a*)

This "causerie" on a subject of which the importance seems to advance daily with seven-league-boots stride in this our "decadent generation," is intended, as we are told in the preface, for the benefit of friends in general: "leur exposerait *ce qu'il faut faire et ne pas* faire." The author skilfully advocates and logically defends his application of the term *Stomatologie* to the theory and practice of his speciality and he unquestionably shows his readers what to do and what not to do with the enviable lucidity and coincident impressiveness of thought and diction which so uniformly characterise the published expositions of the Gallic experts in science and philosophy.

The first chapter of this booklet presents the most appropriate heading which embodies the statement that: "When the teeth become painful, then, indeed, is the time to seek advice." And from this very judicious beginning down to the close of his terminal (ninth) chapter, our author's text is quite egg-full of the most lucid information and suggestion, conveyed in an exquisitely luminous style, which will surely enable every (French-)man in the street to read as he runs, at however rapid a pace. The diction and selection of subject matter are, of course, meant to be of the "popular" quality, but we have no hesitation in expressing the opinion that no general practitioner of the art of healing, or student of the prevention of disease can fail to find pleasurable profit in the perusal of the highly instructive and highly entertaining contents of this most readable and suggestive little volume.

SMALL-POX AND SANITATION. (*b*)

When we noticed Dr. Hanna's book in these columns some months ago, we anticipated that the facts contained therein would prove unwelcome reading to the supporters of the anti-vaccination movement, and the event quite justifies our anticipation. Our readers will remember that, stated in the most general terms, Dr. Hanna's investigations went to show that among vaccinated children before the age period of twenty years there were no deaths from small-pox. After this the percentage case mortality rose during the next two decades, to fall again during the ages between fifty and sixty years, while from sixty years and upwards it just reached ten per cent. Among unvaccinated persons the percentage case mortality for those under two years of age was 58 per cent, between two and five years 30.6 per cent., between five and ten years 19 per cent., between ten and fifteen years 3.2 per cent. After this age period the percentage case mortality again rose till between the ages of forty and fifty years it reached 50 per cent., at which figure it remained constant for the remaining periods. The figures also tended to support the belief that the protection afforded by vaccination bore some relation to the scar area left by vaccination. We have not space to state in detail the reply of the Anti-vaccination League to these figures, but we shall indicate the lines on which the reply proceeds. It is urged that the decline observed in small-pox in recent years must, like the greater decline in the incidence of typhus

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(*a*) "Les Préjuges en Art Dentaire." Par le Docteur E. Charézieux, Directeur de l'Ecole Pratique de Stomatologie ou des Hautes Etudes Dentaires de Paris. Paris: A. Maloine, 1913.

(*b*) "Studies in Small-Pox and Sanitation, based on the experience of the City of Liverpool." A reply to the book entitled "Studies in Small-Pox and Vaccination" by William Hanna, M.D. Published by the Anti-vaccination League. 8vo. pp. 39. London: 1914.

fever, be due to the cause operating in common in both diseases—improved sanitation. In this connection we would point out that there is no antagonism between vaccination and sanitation, and no one denies the influence of improved sanitation on both the incidence and mortality of small-pox. One must beware, however, of the fallacy of comparing the general mortality from one disease with the case mortality from another. What Dr. Hanna's figures seem to show is that the case mortality of small-pox, expressed in percentages, is less in every age period for the vaccinated than for the unvaccinated in the same town, and for the vaccinated, for all age periods, it was 2.9 per cent., as compared with 27.2 per cent. for the unvaccinated. It is no answer to these figures to say that this percentage of 27.2 is much higher than it is in other places, such as Leicester. So far from being shattered, Dr. Hanna's argument is not touched by the fact that it was safer "from the point of view of liability to death to be attacked in badly-vaccinated Leicester than in well-vaccinated Liverpool." We have said enough to show the general trend of the reply, a careful study of which we would recommend to our readers, not because we think it will upset the original statement of Dr. Hanna, but because we think that a recognition of the fallacies that it contains will confirm one in the belief of the usefulness of vaccination as a measure of preventive medicine.

ST. BARTHOLOMEW'S HOSPITAL REPORTS. (*a*)

THE current volume of the "Saint Bartholomew's Hospital Reports" well maintains the high traditions of that ancient institution, and sets an example to other similar institutions of much good work well done and carefully recorded. Besides interesting memorials of the late Mr. Alfred Willett and Mr. Raymond Broadley Etherington-Smith, the volume contains two medical and five surgical papers. Dr. Sladden gives an interesting account of a trial of some tests for pancreatic disease, and Dr. Shore a note on the blood in myelocytic leukæmia in relation to the prognosis of the disease. Dr. Thursfield writes on splenectomy in acholuric jaundice, and Mr. D'Arcy Power on appendicostomy in the treatment of ulcerative colitis. Mr. Moreton records an interesting case of post-orbital arterio-venous aneurysm successfully treated by ligature of the internal carotid artery. Mr. G. W. Twigg writes on pes cavus as an initial sign of nervous disease, and Mr. Haldinstein Davis gives an interesting account of the experience of the use of neo-salvarsan in the Skin Department of the Hospital. The usual statistical tables and information concerning the hospital work complete the volume.

ULCER OF THE STOMACH. (*b*)

FOR almost one hundred years since Matthew Baillie and Cruveilhier first thoroughly investigated the subject of ulcer of the stomach and established the disease as a definite entity in our nosology, the subject has been one of fascinating interest to generations of medical workers. In spite of this, we are still sadly deficient in exact knowledge as to the causation of the condition, and this deficiency, no doubt, largely accounts for our failures in its treatment. When modern surgery began to achieve the brilliant results of intra-abdominal operations it seemed as if the treatment of gastric ulcer were about to pass from the domain of the physician to that of the surgeon, and patients with the symptoms of ulcer of the stomach flocked to the surgeons to be cured by operation of their distressing complaint. Operations undertaken under these conditions soon revealed the fact that our diagnosis, of which we used to be so certain, was often wrong, and that even when correct, surgical treatment not infrequently failed to give any permanent relief. These discoveries have led to a profound modification of our ideas and the whole subject of gastric ulcer, its diagnosis, its causation, and its treatment, has been again cast into the melting pot for further study. What the outcome of this further study will be it is impossible as yet to say, but we believe that it will lead to great increase in our knowledge and in our capacity for assisting the unfortunate sufferers. Dr. Bolton has taken this opportunity of stating for us the problem of the disease from the physician's point of view and of giving us his reasoned opinion, founded on a wide experience, on the various solutions of it that have been put forward. There is much, no doubt, that will be controverted, and many of the views will have to be modified, but the work is one that will have to be studied by all who wish to advance our knowledge in this direction. The numerous admirable plates illustrating both the macroscopic and the microscopic morbid anatomy of the disease add greatly to the value of the book.

REGIONAL DIAGNOSIS. (*a*)

WE extend a hearty welcome to the English translation of the second edition of Dr. Bing's "Compendium of Regional Diagnosis." The subject is one of extreme complexity and difficulty, yet it is one that is continually presenting itself for solution to both physicians and surgeons. Not so long ago we used to be told that there were two classes of diseases of the central nervous system—those that could be cured with iodide of potassium and those that could not. The diagnosis then was simple and had the advantage of depending on the result of treatment instead of being the foundation for it. We have now got somewhat beyond that stage, and accurate diagnosis not infrequently leads to successful treatment. Accurate diagnosis is urgently demanded both by the physician and the surgeon, yet the difficulties in the way of obtaining it often thwart our best endeavours. Dr. Bing has made this difficult path somewhat easier, and we cordially thank him for the help he has given. Our thanks, too, must be extended to Dr. Arnold for putting Dr. Bing's work within the easy reach of English readers.

ELEMENTARY ZOOLOGY. (*b*)

IN this work the author has assumed that the student possesses an elementary knowledge of chemistry and physics. One general principle, he tells us, has guided him in its compilation—namely, that "the organism should be regarded as a whole." In further illustration of this principle he states in the preface: "I have not adopted views which ascribe to certain morphological constituents of the body of an organism, such as cells and zooids, a mystical individuality, based upon assumptions with regard to their history or potential independence. I have taken indivision, not indivisibility, to be the essence of individuality." This statement rather conveys the impression of placing a severe strain upon the "mentality" of the average intending student of zoology. To such, perhaps, it might even prove alarming. But with the preface the student need not necessarily concern himself, and he will find in the author's pages one of the best expositions of the science of elementary zoology now extant for the student's use. The bulk of the work is naturally devoted to the anatomy and physiology of adult animals. There is, however, an excellent chapter on embryology, constituting a most helpful introduction to the subject. For the most part students experience difficulty in grasping and remembering embryological facts, but in this chapter their pathway of instruction is smoothed for them as far as it is possible to do so. Other chapters deal with "Classification and Evolution" and "The Animal in the World," each of which adds materially to the usefulness of the work.

In an appendix the necessary details are given concerned in the practical working of zoology, which we

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(*a*) "St Bartholomew's Hospital Reports." Edited by F. W. Andrewes, W. McAdam Eccles, G. E. Gask, W. D. Harmer, H. Thursfield, and H. Williamson. Vol. XLIX. 8vo., pp. xxviii., 191, 195, and iii. illustrations. London: Smith, Elder and Co. 1914

(*b*) Ulcer of the Stomach." By Charles Bolton, M.D., D.Sc., F.R.C.P.Lond. 8vo. pp. xv. and 396, with plates. London: Edward Arnold. 1913.

(*a*) "Compendium of Regional Diagnosis in Affections of the Brain and Spinal Cord." By Robert Bing, Privat-Docent for Neurology in the University of Basle. Translated by F. S. Arnold, M.B. 8vo, pp. xiv. and 222. London: Rebman, Ltd. 1913.

(*b*) "A Manual of Elementary Zoology." By L. A. Borradaile, M.A. London: Henry Frowde; Hodder and Stoughton. 1913.

would suggest would have been better placed as a special chapter at the beginning of the book. The first thing a worker has to learn is the tools and appliances required for his work. A word in commendation should be added in respect to the lavish number of illustrations explanatory of the text. We have pleasure in cordially recommending this manual as a trustworthy and comprehensive guide for the examinational purposes of the zoology student.

INDEX-CATALOGUE OF THE U.S.A. LIBRARY, SURGEON-GENERAL'S OFFICE. (*a*)

This, the latest volume to hand of this immense index-catalogue, comprises 1,057 double-columned folio pages, and includes titles under the initial letter T. The corresponding volume, which was published in 1893, twenty years ago, consisted of 1,016 pages, of which the letter T occupied 852 pages. At that time the Surgeon-General's library contained 6,426 volumes and 8,850 pamphlets, and indexed 38,461 titles of articles in periodicals. To-day the library contains 182,984 volumes and 320,343 pamphlets. Book titles now number 295,049, and journal titles 1,088,778. Close on 1,200 columns are occupied with the titles of articles on Tuberculosis alone; in the 1893 volume it was disposed of in 106 columns. The work is the conception of a great people and is worthy of them—an honour to their nation and a blessing to medicine.

TREATMENT OF TUBERCULOSIS. (*b*)

This is a compact volume, of a useful size, dealing with the treatment of tuberculosis in all its forms. It commences with a general consideration of tuberculosis and the parts it affects, and then goes on to organic demineralisation, indications bearing on the treatment of predisposition and of actual phthisis, followed by the hygiene, treatment and alimentation which are of such vital importance in this condition. The pages devoted to the treatment of pulmonary phthisis are specially worthy of mention; all the latest information is given and is complete without in any sense being drawn out, and should be read by every medical man whose work in any way brings him in association with tubercular infection. The treatment of tuberculosis according to age and to the associated morbid conditions is very adequately dealt with, as also are those of extra-pulmonary tuberculous affections; and the chapter on the social defence against tuberculosis should meet with the approval of all of our tuberculosis officers. The style of the book is excellent and the translator's part has been well done, whilst that of the publisher is beyond reproach, the type being easily read and exceptionally clear. The book is one that every student of tuberculous treatment should peruse, and the references to the most important literature are all that can be desired. We have nothing but praise for the volume before us, and for the information it contains.

OPHTHALMIC SEMIOLOGY AND DIAGNOSIS. (*c*)

This book has been produced upon somewhat novel lines. It fills a space which has hitherto been vacant in the literature of the subject. Whether, however, that space having been filled the work will supply a need, remains to be seen. Nevertheless, it is worthy of success. The author has plainly devoted much time and thought to its compilation. Moreover, it contains a mass of useful information for the ophthalmic student in a convenient and handy form. Again, a distinct and praiseworthy feature of the work is its embellishment with many excellent illustrations, and some coloured plates of the fundus: these latter, the author tells us in his preface, form part of the collection of drawings which he has been making since 1884, all of which have been directly painted from the living subject. As the work consists solely of the symptomatology and diagnosis of diseases of the eye, and excludes the subject of treatment, it may be inferred that for the practitioner its usefulness will be mostly fulfilled as a work of reference. There are some glaring misprints, showing careless proof-reading, and here and there is displayed a looseness of style, suggestive of hurried composition.

THEORETICAL CHEMISTRY. (*a*)

This volume serves as an introduction to the study of physical chemistry. The author has succeeded admirably in presenting such difficult problems as the osmotic theory of solutions and the principles of electro-chemistry in a clear and simple manner. The solution of numerical examples forms a definite part of the book. The volume consists of nineteen chapters, and is provided with a very complete index. In these chapters the theories of chemical science are very fully and clearly expounded, and we feel sure that a study of Dr. Getman's interesting work will greatly aid the student in understanding the fundamental principles on which the science of chemistry is based. The price seems to us, however, to be somewhat prohibitive.

THE HEART BEAT. (*b*)

The rapid advance that has been made in recent years in the clinical investigation of morbid hearts has, we fear, tended rather to mystify than to enlighten many busy practitioners. The methods themselves require patient study and long-continued practice before they give results that can be relied upon. These results, too, when obtained, though they have added greatly to our knowledge of the mechanism of the heart both in health and disease, have not as yet led to any profound modification in either the diagnosis or treatment of cardiac diseases. Under such circumstances it is not to be wondered at that the general practitioner is inclined to look on the methods of cardiography rather as a fad of the specialist than as a useful help to the clinical physician. While there is much that is sound in this position, it is quite obvious that the results of cardiography are of too much importance to be altogether neglected by any physician who wishes to do the best for his patients. In this difficulty Dr. Lewis has come to our aid with this admirable little handbook, which gives in clear and concise language the chief facts and conclusions derived from the new knowledge, and lays stress on those that are of service at the bedside. The rapid exhaustion of the first edition of the book is sufficient guarantee of its usefulness, and we feel sure that this second edition will be received with a like cordiality.

LABORATORY REPORTS.

SAL HEPATICA.

We have examined this well-known preparation of the Bristol-Myers Company, and we find it to contain the sulphates, carbonates and chlorides of the alkali metals, together with phosphate of sodium. The action of this preparation is similar to the "Bitter Waters" of the Continent, stimulating the liver and by its laxative action producing improvement in metabolism and ridding the body of undesirable products. In appearance it is a white crystalline powder which quickly dissolves in cold water with an effective but not a violent effervescence. Not only does this effervescence render the preparation more pleasant to take, but it produces a sedative effect on the stomach and tends to prevent the slight but unpleasant stomachic griping sensation which is in many indi-

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(*a*) "Index-Catalogue of the Library of the Surgeon-General's Office, United States Army, Authors and Subjects." Second Series. Vol. xviii. Tetamore-Tzschinner. Washington. 1913.

(*b*) "Treatment of Tuberculosis." By Professor Albert Robin. Translated by Dr. Léon Blanc, assisted by Mr. H. de Méric, M.R.C.S. London: J. and A. Churchill.

(*c*) "An International System of Ophthalmic Practice." Edited by Walter L. Pyle, A.M., M.D., Ophthalmic Semiology and Diagnosis. By Charles H. Beard, M.D. With thirteen coloured plates and seventy-one figures in the text. London: Rebman, Ltd. 1913.

(*a*) "Outlines of Theoretical Chemistry." By F. H. Gitman, LL.D., Associate Professor of Chemistry in Bryn Mawr College. New York: Wiley and Sons, Ltd. London: Chapman and Hall, Ltd. 1913.

(*b*) Clinical Disorders of the Heart Beat. A Handbook for Practitioners and Students." By Thomas Lewis, M.D., D.Sc., F.R.C.P. Second Edition. 8vo., pp. xii. and 116. London: Shaw and Sons. 1913.

viduals the sequel of taking sulphates of the alkali metals. Besides its gentle purgative action, the sodium phosphate effects diuresis and adds to the acceptability of the preparation in cases with gout or rheumatism.

MEDICAL NEWS & PASS LISTS.

The British Medical Association.

The eighty-second annual meeting of the British Medical Association will be held at Aberdeen on July 28th, 29th, 30th and 31st next, under the presidency of Sir Alexander Ogston, K.C.V.O., M.D., LL.D., Consulting Surgeon, Aberdeen Royal Infirmary and Surgeon-in-Ordinary to H.M. the King in Scotland.

Sixteen scientific sections have been arranged and will meet daily from Wednesday to Friday in the Marischal College, at 10 a.m.—viz., Anatomy and Physiology; Dermatology and Syphilology; Diseases of Children, including Orthopædics; Electro-Therapeutics and Radiology; Gynæcology and Obstetrics; Laryngology, Rhinology and Otology; Medical Sociology; Medicine; Naval and Military Medicine and Surgery; Neurology and Psychological Medicine; Ophthalmology; Pathology and Bacteriology; Pharmacology, Therapeutics and Dietetics; State Medicine and Medical Jurisprudence; Surgery; Tropical Medicine. The programmes throughout promise particularly interesting discussions owing to the large attendance of men of eminence from foreign countries and the Overseas Dominions.

On Tuesday, July 28th, at two o'clock in the afternoon, Sir Alexander Ogston will be inducted to the Presidential chair, while at 8.30 p.m. he will deliver his address in the Music Hall, Union Street.

On Wednesday, July 29th, at 12.30 p.m., Dr. Archibald Edward Garrod, F.R.C.P., F.R.S., will deliver the address on Medicine.

On Thursday, July 30th, at 12.30 p.m., Sir John Bland-Sutton, F.R.C.S., will deliver the Address on Surgery.

On Friday, the Popular Lecture will be delivered by Professor J. Arthur Thomson, M.A., LL.D.

The last three addresses will be delivered in the Marischal College. A number of excursions have been arranged to places of interest in the neighbourhood.

Society for Relief of Widows and Orphans of Medical Men.

At the recent Quarterly Court of the Directors of this Society nine gentlemen were elected members of the Society. The sum of £1,890 was voted for the payment of the half-yearly grants to the widows and orphans. At the present time there are 45 widows and 13 orphans in receipt of grants. The invalid funds of the Society now amount to £139,500. Membership is open to any registered medical practitioner who, at the time of his election, is resident within a 20-mile radius of Charing Cross. The annual subscription is two guineas, special terms for life membership, which vary with the age of the member. Relief is only granted to the widows and orphans of deceased members. Since the last Court five letters had been received from widows of medical men asking for relief, but this had to be refused as their husbands had not been members of the society. Further particulars and application forms for membership may be obtained from the Secretary at the offices of the Society, 11 Chandos Street, Cavendish Square, London, W.

Deputation on Forcible Feeding to the Home Secretary.

The following statement has been sent to us on behalf of the intended deputation:—

To-day, at 4 p.m., a deputation of medical men waited on Mr. McKenna by appointment to discuss the matter of forcible feeding of prisoners. The deputation consisted of Dr. McIntosh (chairman), Dr. Haden Guest, Sir Victor Horsley, Mr. C. Mansell Moullin, Mr. Frank Moxon, and Dr. H. Schutze, thus representing every branch of the medical profession. When the deputation was introduced they asked that reporters should be admitted. Mr. McKenna refused, on the ground that names of prisoners might be mentioned in the discussion. The deputation then retired and discussed the Home Secretary's objection. On returning, they pointed out to the Home Secretary that his objection was without any weight, and that the names of cases to which they intended to refer had already appeared with details in the public Press. Mr. McKenna still refused to admit reporters, and in answer to Dr. McIntosh further refused even to admit the deputation's own reporter. Mr. McKenna said he had arranged that an official reporter should be present in order that he (the Home Secretary) should keep full control over any report that ought to be sent for publication. The deputation then explained to Mr. McKenna that they could not accept his refusal, that their position in this matter of forcible feeding was one of grave public responsibility, and that therefore they demanded they should be heard in public. Of course the deputation is ready at any time to place its views before the Home Secretary should he reconsider his refusal.

Sanatorium for Woman in Surrey.

It is announced that the Metropolitan Asylums Board have purchased 57 acres of land at Hyde Hill, two miles from Godalming, for the purpose of erecting a tuberculosis sanatorium for women. Accommodation is to be provided for 200 patients. The land lies nearly 400 feet above the sea level and is in the heart of some of the finest Surrey scenery. The plans for the building are in course of preparation.

Another Anonymous Gift to Cardiff.

It is announced that a further gift of £10,000 has been made to Cardiff Medical School by the anonymous donor who has previously made donations equivalent to £90,000.

A New Hospital for Hastings.

The Duke of Richmond and Gordon, one of the Provincial Grand Masters, laid the foundation-stone of the new hospital at Hastings last week, with full Masonic ceremonial. The building is to cost £50,000, and is to be erected as a memorial to King Edward.

London Hospital Scholarships.

The following awards are announced at the London Hospital Medical School:—

Price Entrance Scholarships, Science, £100, C. S. Cloake; Anatomy and Physiology, £52 10s., L. G. Jacob; Entrance Scholarship in Science, £50, G. Adler.

University of London.

At a meeting of the Senate held on July 15th, it was resolved, in response to a request from the Board of Control, to suggest the following conditions for the grants allotted to the Board by the Treasury for encouraging scientific research into the causes and treatment of mental diseases and mental defect:—(1) Individual grants to be made to a few observers who have been thoroughly trained and who are capable of carrying out scientific investigation; (2) no grant under the scheme to be made merely to maintain or assist pathological laboratories or to be given to persons for the purpose of routine work; (3) grants to be given only to advance the study of fundamental problems connected with insanity and mental deficiency; and to inform the Board that the Senate would be pleased to advise them as to the objects towards which investigations thus aided might with most advantage be directed.

University of Cambridge.

At a Congregation held on July 15th the following degrees were conferred:—

M.C.—W. S. Perrin, Caius.

M.B. and B.C.—P. Stocks, King's; H. P. Dawson, Trinity; S. G. Askey, St. John's; T. L. Hardy, Selwyn.

M.B.—F. E. W. Rogers (by proxy), Emmanuel.

B.C.—H. Hartridge, King's; W. B. Gordon, Clare;

W. F. B. Smith, Pembroke; J. W. Pigeon, Christ's; C. Mackenzie, Emmanuel; C. R. A. Thacker, Downing.

Royal Colleges ot Physicians and Surgeons of Edinburgh, and Royal Faculty of Physicians and Surgeons of Glasgow.

The quarterly examinations of the above Board, held in Edinburgh, were concluded on the 17th inst., with the following result:—

First Examination.—The following candidates passed: Andrew I. Meek, Leslie Macduff, James Chambers, Percival C. H. Homer, William V. Jackson, Harold C. Smith, Daniel C. Thiems, Shapoor D. Vania and Eduard L. Adendorff; and six passed in physics, nine in biology, and four in chemistry.

Second Examination.—The following passed: John C. Bedwell, William A. Mein, Frederick C. J. Mitchell, James H. Brown, David M. Stewart, James Byrne and Martha H. Hoahing; and two passed in anatomy and two in physiology.

Third Examination.—The following passed: Edward A. Neilson, Bertram C. Hallor, Thomas D. Renwick, James Bannerman, William J. F. Craig, Archibald Evans, James V. R. Rohan, Alexander W. McGregor, James E. Ainsley, William H. A. D. Sutton, Reginald V. Clarke, John P. Fairley, Laurence Fraser, John H. Blackburn and Alfred Parker; and one passed in pathology and one in materia medica.

Final Examination.—The following candidates, having passed the Final Examination, were admitted L.R.C.P.E., L.R.C.S.E., and L.R.F.P. and S.C.: Joseph K. Venables, Kenneth G. Fraser, Thomas E. Lawson, David C. Graham, Robert M. Paterson, Reginald E. Illingworth, John M. Chrystie, Edward C. Brooks, Norbert R. Whitaker, William Millerick, Jan M. Beyers, Walter Chapman, Theunis B. Truter and Joseph V. Duffy; and five passed in medicine, three in surgery, three in midwifery, and 13 in medical jurisprudence.

Edinburgh University—Graduation Ceremonial.

On Thursday last, July 16th, Principal Sir William Turner, Vice-Chancellor of the University of Edinburgh, conferred degrees on successful students as follows:—Doctor of Medicine, 28; Bachelor of Medicine and Bachelor of Surgery, 115; Diplomas in Tropical Medicine were also awarded. The following is a list of the honours conferred, the names being given in alphabetical order:—

Degree of Doctor of Medicine.—T. M. Anderson, M.B., Ch.B., *J. W. Cairns, M.B., Ch.B., E. F. Coghlan, M.B., C.M., J. Crocket, M.B., Ch.B., *J. A. Cruikshank, Capt. I.M.S., M.B., Ch.B., **J. M. Dewar, M.B., Ch.B., * Thomas R. Evans, M.B., Ch.B., *K. Fraser, M.B., Ch.B., ***J. D. Gunn., B.A.Cantab., M.B., Ch.B., *W. R. C. Heslop, M.B., Ch.B., J. Hume, M.B., C.M., E. C. C. Maunsell, Capt. I.M.S., M.B., Ch.B., R. C. J. Meyer, B.A.Cape, M.B., Ch.B., R. Park, M.B., Ch.B., *A. H. Porter, M.B., Ch.B., I. N. Ross, M.B., Ch.B., S. F. Silberbauer, M.B., Ch.B., W. D. D. Small, M.B., Ch.B., M. W. Smart, M.B., Ch.B., ***S. A. Smith, M.B., Ch.B., K. R. Tampi, B.A.Madras, M.B., Ch.B., J. Tennant, M.A., M.B., C.M., A. B. Thomson, M.B., Ch.B., M. A. Wajid, M.A., B.Sc., M.B., Ch.B., A. S. Walker, M.B., Ch.B., ***A. Watson, M.B., Ch.B., W. H. Williams, M.B., C.M., ***L. S. Willox, M.B., Ch.B.

***Awarded Gold Medal for Thesis. **Highly commended for Thesis. *Commended for Thesis.

Degrees of Bachelor of Medicine and Bachelor of Surgery.—R. Aitchison, H. Alexander, R. Alexander, B. C. Ashton, C. Atkinson, Mary A. Baird, **R. G. Bannerman, M.A., Rachael M. Barclay, M.A., **R. C. Batchelor, M.A., H. Bell, J. G. Bell, J. W. Bennett, S. E. Bethell, J. Biggam, H. B. Binks, W. Bird, E. J. Blair, A. B. Brook, H. P. Caithness, A. Cameron, R. E. Cameron, H. E. Collier, A. N. Craig, J. W. Darling, T. M. Davie, W. M. Dickson, C. L. Dodd, C. E. Dukes, G. K. Edwards, *J. D. Evans, B.Sc., F. B. Eykyn, G. D. Fairley, M.A., S. Fenwick, T. C. Findlater, E. Fowler, H. R. Friedrichs, T. A. Fuller, H. J. C. Gibson, M.A., R. E. Gibson, D. J. Glen, A. S. Glynn, H. P. T. Haddow, A. R. Hamilton, N. E. Hay, J. J. Healy, G. F. P. Heathcote, F. Henderson, Gertrude M. A. Herzfeld, J. B. Hogarth, K. Husain, Florence E. Inglis, B. O. Jarrette, C. P. M. Joubert, P. W. J. Keet, C. G. Lambie, S. J. A. Laubscher, Louis Levy, **P. MacCallum, M.A., M.Sc., T. M'Fetridge, R. M. Mackay, E. F. W. Mackenzie, E. L. Mackenzie, J. J. Mackenzie, J. A. MacLaren, I. K.-F. MacLeod, J. M. M'Minn, M.A., F. G. Macnaughton, E. Mansfield, V. Mason, D. J. Max, B. Mendelssohn, G. Millar, R. W. Miller, E. M. Molesworth, G. T. Mowat, R. M'I. Muir, W. Murdoch, J. C. Neil, H. S. Palmer, C. C. Philip, G. S. UPirie, R. Power, B. E. Sydney, **J. M. Pringle, M. Razakhan, H. A. Rippiner, R. L. Ritchie, H. C. Robins, C. Sand, A. C. Shaw, H. K. Shaw, B. Shires, H. J. Simson, H. C. Sinderson, T. W. Smart, *A. H. D. Smith, D. M. Smith, A. S. Taylor, J. S. Taylor, A. B. Theron, A. R. Thomson, B.A., **R. O. Thomson, R. Thorp, F. E. Tillyard, P. du Toit, Janet P. Walton, Chik H. Wan, H. D. Welpley, H. P. W. White, G. S. Williamson, *D. G. Wishart, E. W. N. Wooler, P. C. V. Woudberg, B. E. Wright, G. D. Yates, J. P. Young.

** Indicate that the candidate has passed the examinations with first-class honours. *Indicates that the candidate has passed the examinations with second-class honours.

Edinburgh University—Award of Fellowships, Scholarships, Prizes, &c.

At the annual graduation ceremony on Thursday last, the following were awarded:—

Thesis Gold Medallists.—John D. Gunn, B.A., M.D., Sidney A. Smith, M.D., Leonard S. Willox, M.D.

The Cameron Prize in Practical Therapeutics.—To Professor Paul Ehrlich, Director of the Royal Institution for Practical Therapeutics, Frankfürt, for his discovery of salvarsan, and its valuable therapeutic effects in syphilis, and also for his researches on numerous synthetic organic compounds of arsenic, and on immunity.

The Gunning Victoria Jubilee Prize in Forensic medicine.—Sydney A. Smith, M.D.

The Ettles Scholarship.—Ralph C. L. Bachelor, M.A., M.B., Ch.B.

The Allan Fellowship in Clinical Medicine and Clinical Surgery.—Douglas J. Glen, M.B., Ch.B.

The M'Cosh Graduate's and Medical Bursaries.—Robert G. Bannerman, M.A., M.B., Ch.B.

The Beaney Prize in Anatomy and Surgery.—Peter MacCallum, M.A., M.Sc., M.B., Ch.B.

The Mouat Scholarship in the Practice of Physic.—Ralph C. L. Batchelor, M.A., M.B., Ch.B.

The Conan Doyle Prize.—Charles P. M. Joubert, M.B., Ch.B.

The Annandale Gold Medal in Clinical Surgery.—Ion Keith-Falconer McLeod, M.B., Ch.B.

The Buchanan Scholarship in Gynæcology.—Peter MacCallum, M.A., M.Sc., M.B., Ch.B.

The James Scott Scholarship in Midwifery.—Andreas B. Theron, M.B., Ch.B.

The Dorothy Gilfillan Memorial Prize.—Gertrude M. A. Herzfeld, M.B., Ch.B.

The Wellcome Medals in the History of Medicine.—Gold medal—Joseph Schneider; silver medal—William Everett.

The Pattison Prize in Clinical Surgery.—Andrew J. Caird, M.A., and William Goldie, M.A.—equal.

The Wightman Prize in Clinical Medicine.—Robert G. Bannerman, M.A., M.B., Ch.B.

The Cunningham Memorial Medal in Anatomy.—Robert Walker.

The Whiteside Bruce Bursary.—Henry J. Parish.

Conjoint Examinations in Ireland.

The following candiates have passed the second professional examination by the Royal College of Physicians and the Royal College of Surgeons, July, 1914:—M. Bradley, G. Dunne, D. H. Ferris, A. F. E. Harbord, F. B. Harrison, H. Hurst, A. Mahoney, E. McCarthy, T. P. Macdonnell, D. B. McEniry, H. L. Mooney, B. J. Mulligan, G. C. F. Roe, J. C. Smyth.

NOTICES TO CORRESPONDENTS, &c.

☛ CORRESPONDENTS requiring a reply in this column are particularly requested to make use of a *Distinctive Signature or Initial*, and to avoid the practice of signing themselves "Reader," "Subscriber," "Old Subscriber," etc. Much confusion will be spared by attention to this rule.

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ORIGINAL ARTICLES OR LETTERS intended for publication should be written on one side of the paper only and must be authenticated with the name and address of the writer, not necessarily for publication, but as evidence of identity.

REPRINTS.—Reprints of articles appearing in this JOURNAL can be had at a reduced rate, providing authors give notice to the publisher or printer before the type has been distributed. This should be done when returning proofs.

W. T. (East Riding).—Early laryngeal involvement in phthisia will respond fairly well, as a rule, to careful treatment. Intratracheal insufflations of guaiacol (9 parts), eucalyptol (2 parts), and menthol (one part) may be tried, or steam inhalations of eucalyptol (4 parts), tincture of benzoin (60 parts), and menthol (2 parts) are recommended by Lyon. Sprays of heroin or cocaine may be necessary later to relieve pain.

DR. S. W. (London, N.).—Such cases are not so very uncommon. Long continued hypertrophy of the lips, apart from tuberculosis or syphilis, are sometimes streptococcal in origin, and an appropriate vaccine has afforded relief. In other cases a lymphangioplastic operation may be advisable.

AN EMBLEM FOR MEDICAL MOTORISTS.

THE Æsculapian Club, of Philadelphia, has announced that its members will have placed on their automobiles an insignia of a serpent twined on a rod, this emblem to be placed on a keystone, enclosed in a circle, on which are the words "Æsculapian" and "Philadelphia." This strikes us as more fitting than some of the weird mascots and other strange images now affixed to the bonnets of some of the cars of British medical men.

M.B.GLASG. (Kent).—The *Cysticercus ovis* resembles to the naked eye measly pork, but it is smaller, and is stated to be more common in the heart, diaphragm, muscles of mastication, and the tongue.

MR. P. A. (Liverpool) is thanked for his communication which, we regret to say, is unsuitable for our columns.

L. H. STANLEY.—The Royal Navy Medical Service possesses many advantages to commend it to the attention of men starting in life, although it is not quite so popular as is the Indian Medical Service. The next examination of candidates will be held in London on September 28th. For the necessary form you should apply to the Medical Director-General, Admiralty, London, S.W.

Vacancies.

Certifying Factory Surgeons.—The Chief Inspector of Factories announces the following vacant appointments:—East Newcastle (Northumberland), Maiden Newton (Dorset), West Newcastle (Northumberland).

Walsall and District Hospital.—Assistant House Surgeon. Salary £110 per annum, with board, residence, and laundry. Applications to Frank Inch, Secretary.

Kent County Asylum, Maidstone.—Fourth Assistant Medical Officer. Salary £250 per annum, with furnished quarters, board, attendance, coals, gas, garden produce, milk, and washing. Applications to the Medical Superintendent.

Hulme Dispensary, Dale Street, Stretford Road, Manchester.—House Surgeon. Salary £180 per annum, with apartments, attendance, coal, and gas. Applications to Honorary Medical Secretary. (See advt.)

Falkland Islands.—Assistant Colonial Surgeon. Salary £400 per annum; private practice allowed. Applications to the Assistant Private Secretary, Colonial Office, Downing Street, S.W.

Rochdale Infirmary and Dispensary.—Senior House Surgeon. Salary £120 per annum, with board, residence, and laundry. Applications to T. Elvyn Kershaw, Secretary

Manchester Northern Hospital for Women and Children, Park Place, Cheetham Hill Road.—House Surgeon. Salary £120 per annum, with apartments and board. Applications to Mr. Hubert Teague, Secretary, 38 Barton Arcade, Manchester.

Wrexham Infirmary.—Resident House Surgeon. Salary £120 per annum, with board, lodging, and washing. Applications to Frank Sisson, Secretary, 7 Hill Street, Wrexham.

Ingham Infirmary and South Shields and Westoe Dispensary.—Junior House Surgeon. Salary £115 per annum, with residence, board, and washing. Applications to John Potter, Secretary, Ingham Infirmary, South Shields.

Appointments.

BRIDE, T. MILNER, M.D.Vict. Manch., Honorary Surgeon to the Manchester Royal Eye Hospital.

CRAIG, F., M.B., B.S.R.U.I., Medical Officer of Health to the Londonderry Corporation.

HOWELL, JAMES B., L.R.C.P.Lond., M.R.C.S., Medical Officer of Health for Hammersmith.

MACGREGOR, ALASTAIR, M.D., C.M.Edin., Chief Assistant in the Electrical Department at St. Bartholomew's Hospital.

MULLALLY, G. T., M.B., B.S.Lond., Surgical Registrar and Demonstrator of Anatomy at Guy's Hospital Medical School.

RYLE, J. A., M.B., B.S.Lond., Medical Registrar to Guy's Hospital Medical School.

STANLEY, E. GERALD, M.S.Lond., F.R.C.S.Eng., Assistant Surgeon to the Dreadnought Hospital, Greenwich.

TODD, A. H., M.B., B.S.Lond., Surgical Registrar and Demonstrator of Anatomy at Guy's Hospital Medical School.

WALKER, M. G. L., M.B., Ch.B.Leeds, Certifying Surgeon under the Factory and Workshop Acts for the Crosshills District of the County of York.

Births.

LOCKWOOD.—On July 12th, at 19 Upper Berkeley Street, Portman Square, W., to Charles Barrett and Edie Lockwood—a daughter (Joy).

MCCARDIE.—On July 12th, at 39 Frederick Road, Edgbaston, Birmingham, the wife of Dr. W. J. McCardie, of a son.

ZORAB.—On July 8th, at 21 Carlton Crescent, the wife of Arthur Zorab, M.B., B.S.Lond., late I.M.S., of a son.

Marriages.

CURTIS—BRYAN-BROWN.—On July 7th, at Fulning Church, the Rev. John Curtis, B.D., to Eda Stanley Bryan-Brown, M.B., B.S.Lond.

DAVIS—JENNINGS.—On July 18th, at St. Paul's Church, Kingston Hill, Herbert Rees Davies, M.D., of Kingston-on-Thames, son of Mr. and Mrs. Rees Barrett Davies, of Snaresbrook, to Eleanor Alice, only daughter of Mr. and Mrs. Walter Jennings, of Kingston Hill.

ELLISON—PUCKLE.—On July 18th, at St. Peter's, Belsize Square, Frank Ellison, M.D., seventh son of the Very Rev. Dean Ellison, of Ferns, to Nina, only daughter of the late James Puckle and Mrs. Puckle, Hampstead.

FREER—PARKER.—On July 18th, at the Parish Church, Arbory, Isle of Man, Robert Mylcraine Freer, M.D., M.S., D.P.H., of Castletown, to Dorothy, daughter of George and Edith Parker, of Balladoole, Castletown, Isle of Man.

Deaths.

BARRY.—On July 13th, Lieut.-Colonel D. F. Barry, I.M.S. (retired), The Brake, Queenstown, aged 59.

MASON.—On July 19th, at 2 York Road, Birmingham, Hugh Herbert Mason, M.R.C.S., aged 66, late of Barking, Essex.

PITT.—On July 10th, at the Red House, Lowerford, Charles Wightwick Pitt, M.R.C.S., L.S.A., formerly of Malmesbury, aged 71.

REITH.—On July 15th, in Aberdeen, Alexander Reith, M.D., Mar. Coll. Aberd., aged 74.

ROBERTSON.—On July 9th, at Lerwick, John Fordyce Robertson, M.A., M.D.Edin., F.R.C.S.Ed., J.P., aged 48

SHAW.—On July 16th, at 146, Upper Parliament Street, Liverpool, Hugh Thomas Shaw, M.D., M.Ch., R.U.I., D.P.H., D.T.M.Liv.

WILLIAMS.—On July 10th, at The Cottage, Talgarth, Hubert Williams, L.S.A., J.P., aged 44.

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THE MEDICAL PRESS AND CIRCULAR.

"SALUS POPULI SUPREMA LEX"

VOL. CXLIX. WEDNESDAY, JULY 29, 1914. No. 5.

NOTES AND COMMENTS.

A Death from Glanders. AN interesting tragedy has recently been enacted in a Nottingham colliery village. One of the coal-workers, a man 33 years of age, was taken ill with an acute malady that suggested sunstroke. His fever abated; pains came on in the shoulder and nape of the neck, and after a week, pneumonic symptoms of an asthenic type. An inflammatory patch then appeared on the man's ankle, and this was followed by an eruption of blebs in various parts of the body. Before death he was seen by a consultant physician, but no positive diagnosis was arrived at. It was only some days after his death that the medical attendant was led to connect the illness with a serious outbreak of glanders amongst the ponies in the pit where deceased worked. It is most interesting to note that neither the colliery surgeon nor the consultant had ever seen a case of human glanders, a fact that affords convincing and satisfactory evidence of the extreme rarity of the disease. Not many years ago the disease was endemic throughout the United Kingdom, and the text-books of the last generation contained minute accounts of various manifestations. Some five or six years ago a fatal case occurred in London, and others are reported from time to time. Fortunately we have in mallein a conclusive test as to whether a horse is or is not affected by glanders, so that it is possible to weed affected horses out of any suspected stable.

Glandered Ponies from Russia. IT appears that some few days before the man was attacked a pony in the pit was found to be suffering from an acute contagion. The colliery veterinary surgeon called in the county veterinary officer, but the disease was not notified as glanders for four days, when the pony was at once destroyed. There are some 130 ponies housed in the pit stables, which are situated in excavations close to the shaft. Investigation showed that 42 ponies were suffering from "farcy" buds, a chronic form of the malady, and these were promptly destroyed. The direct monetary loss from the outbreak is therefore considerable, apart from the more serious fact that human life has been sacrificed. In connection with the possible origin of what is now happily so rare a disease in the United Kingdom is the significant statement by a local authority, quoted in the *Nottingham Daily Express* of July 21st, that two-thirds of the ponies employed in the Nottingham collieries come from Russia. It seems, therefore, not unlikely that the disease has been imported, and that it might have been excluded by a rigorous quarantine, including the application of the mallein test. The latter precaution, indeed, should surely be taken in the case of all imported horses. The identification of the *Bacillus mallei* as the causative organism of glanders, although it has not so far led to the discovery of a remedy against the disease in man, has provided a diagnostic test in horses. As years go by it may be assumed that all the infectious diseases which now attack mankind will become so rare as to be more or less unrecognisable by medical men, as now actually happens not infrequently in the case of small-pox, typhus fever and plague.

A Boxer's Death. ON the 23rd a boxing contest took place at Maidenhead Hippodrome, when the chief event was a fight for a purse of £25, between Private Eggleston, late of the Royal Berks Regiment, and Bill England, a Reading light-weight. Eggleston, the challenger, is thirty years of age, being eight years older and several inches taller than his opponent. From the first round he had the best of the fight, if, indeed, the contest is worthy of so one-sided an affair. England was advised by his seconds to give up at the end of the second round, but refused to do so. Half-way through he was so distressed and punished that Dr. Ellis, who was in the audience, appealed to the referee to stop the fight. On three occasions England had been almost counted out. The fight was stopped and the boxers shook hands and left the ring unassisted. Later, England became unconscious in his dressing room and died some hours after his removal to the local cottage hospital. *Post-mortem* he was found to have died of hæmorrhage of the brain and to have sustained a fracture of the temporal bone. At the subsequent inquest the jury censured the referee for not having stopped the contest sooner. That view will doubtless be widely endorsed amongst sporting men, but a large section of the public outside that curious relic of barbarous times will go a good deal further, and assert that the whole conduct of these "boxing" matches should be rigorously reformed, or that they should be altogether abolished. The result in England's case shows that the gloves offer but a flimsy disguise for what is really the old-fashioned prize fight. The pugilist of a couple of generations back could not hope to do more than kill his man. Why do not boxers insist upon properly padded gloves, instead of the murderous shams used in modern boxing-matches?

Town-bred *versus* Country-bred Workmen. AN ingenious theory was spun at the recent Conference of the Royal Institute of Public Health at Edinburgh by Mr. Harry J. Wilson, H.M. Inspector of Factories at Glasgow. He contrasted the figures of the height and weight of 2,740 men reared in industrial centres at indoor occupations with those of 440 navvies, iron workers and salmon fishers who had been born and bred in country districts. As the result of his investigations he came to the conclusion that a considerable proportion of our working population is being artificially stunted to a grave extent. Deterioration, from his point of view, was largely a matter of poverty. Both propositions are more or less self-evident, although one must carefully bear in mind that for the most part the quality of the physical constitution is mainly settled by heredity and environment during the school age, while the element of occupation supervenes at a later period. Under the changed conditions of modern social reform, which provides food for hungry school children and medical care for their defects and ailments—not to mention the support of workpeople in sickness and unemployment, and fuller compensation for accident, the industrial surroundings of the town artisan and his children have been vastly improved. Given a high standard of environment, the physique of the town worker should not fall far short of that of his country cousins.

A London Institute of Nurses. The proprietor of the Harley Institute of Nurses, devoted to the teaching of massage and other nursing matters, cut a sorry figure recently in the police court, where a magistrate expressed a hope that there were not many more places of the kind in London. It appeared that nurses were trained at the Institute and engagements obtained for them by the defendant, on the understanding that a certain percentage of the money earned by the nurses was retained by him. This is, of course, a legitimate contract, the fairness of which would depend mainly on the amount deducted by way of commission. The complaint against the defendant was of a more serious kind, namely, that in certain instances he appropriated the whole of the money, and in some cases large sums were due to nurses. There is no substantial reason to doubt the justice of the magistrate's decision, and it is desirable that the public generally, as well as nurses and the medical profession, should be informed of the way in which the Institute has been conducted.

A Moneylending Bait. For years past the moneylenders have been making a dead set at the medical profession—a London consultant not long ago showed us a bundle of their circulars which he had collected during a period of eighteen months. He sent the papers to the editor of a journal which pays especial attention to the doings of these gentry, and found that many of the senders had been pilloried on various occasions as arrant rogues. It is to be hoped that the continued bombardment of medical men by these harpies does not mean that they furnish a fruitful field for exploitation. One of the latest dodges has been to offer an advance upon money accruing under the National Health Insurance Act. It is to be hoped that any panel doctor who is tempted to anticipate payment in that way may summon the requisite strength of mind and put Satan behind him. Anyone who gets into the clutches of the moneylenders deserves our sincere sympathy. A short Act dealing with these parasites of society root and branch would confer a real benefit upon the public and bring about a long over-due reform.

LEADING ARTICLES.

"SECRET REMEDIES."

The evil wrought by unqualified medical practice is so vast and, indeed, so incalcuable that any check to its operations is a matter of deep satisfaction to thinking men interested in the welfare of the community. Some time ago the British Medical Association published a book under the title of "Secret Remedies," criticising the composition, the claims, the therapeutic and commercial value and other interesting details of and concerning a number of largely advertised nostrums. The work ran through several editions rapidly and it has undoubtedly been a thorn in the side of the patent medicine owners, for it has educated the public as to the worthlessness, absolute or relative, of the many preparations foisted upon them with a wealth of exaggerated phrase, if not of brazen and lying effrontery. By reason of its fearless statements the book "Secret Remedies" exposed its authors to legal attack from a whole swarm of nostrum vendors. As a matter of fact, however, if we remember aright, only one of them sought the vindication of the law courts. The plaintiff in that case was Mr. Charles Stevens, the managing director of a company formed for the sale of a specific for the cure of consumption. In a first trial brought against the British Medical Association for the recovery of damages for libel, the jury did not agree and the suit was dismissed. The analysis published by defendant gave krameria as an ingredient, a substance that Stevens declared was not contained in his preparation, the active or curative virtues of which lay in a certain root called umckaloabo, which plaintiff had discovered in South Africa as a cure for consumption. Some time after the unsatisfactory termination of the first trial a second took place last week, with the happy result that judgment was entered for the defendant Association, with costs of both trials. The case was heard at great length, but only a few of its many points of interest can be considered here. The plaintiff said that he had made £1,000 per month from the sale of his "cure" in Capetown. He was prosecuted for doing such things as belonged to the medical profession and was fined £10 in the first case and £25 in the second. After these prosecutions he set up business in the United Kingdom, where by a grotesque anomaly characteristic of our imperial legislation he was safe from prosecution. The exposure that was effected speedily and effectively in our colony could be brought about in our own country only at enormous cost incurred by a public-spirited professional association. No better illustration of the farcical state of British law with regard to the sale of secret remedies could be desired. Some of the medical testimonials published by plaintiff illustrate the necessity for drastic changes in the law. One, for instance was from a man not on *The Register*, but who was none the less debarred from advertising his opinions under the description "M.D." on a medical matter. It may be pointed out, by the way, that under existing law it is more than probable that the Royal College of Physicians could have seized and destroyed the whole of Mr. Stevens's stock of so-called "remedies." Anyway, it is a scandal to our national commonsense that medically untrained persons should be permitted to amass huge fortunes by professing to cure disease by means that are, scientifically speaking, often nothing more than worthless impostures. Much more might be said about this interesting libel action, which marks an epoch in the history of the statutory campaign that King Henry VIII. inaugurated against "false remedies and false 'poticaries." One last comment we have to make arises from the rumour that it is possible, in the failure of the plaintiff to pay costs, that the whole expenses of the two suits may fall upon the members of the British Medical Association, the resources of which have been seriously drained by legal expenditure during the past few years. Whatever may happen in the present instance it is a gross defect in administrative law that anyone should be able to bring actions for libel without any possible prospect, in the event of non-success, of paying the expenses of what is to all intents and purposes that bugbear of society, a speculative law-suit. The British Medical Association, whatever its faults in other directions, deserves the gratitude of the medical profession for its public-spirited action in the matter of "Secret Remedies."

THE PUBLIC AND UNLICENSED PRACTITIONERS.

In our present state of social enlightenment the fact that legally unqualified persons are allowed to discharge medical functions constitutes a standing reproach to our national prudence. It must be generally conceded that so intricate and responsible a science as that of medicine demands special education and experience from those who profess to offer its advantages to the community. Henry VIII. first recognised the necessity of State medical qualification whereby the public should be enabled to distinguish between the genuine practitioner and the charlatan. He bestowed large powers upon the London College of Physicians for the seizure of false medicines and for the punishment of false practitioners. Some of these provisions were strengthened in subsequent reigns, and, so far as the state of affairs is concerned in the present day, they occupy the position of unrepealed laws. There is reason to believe that were the Royal College of Prysicians of London to exercise its powers, it would be able to purge the metropolis, if not the major part of England, of a large proportion of its quacks and quackery. So far as the art of surgery is concerned, a famous Act of Henry VIII. (*anno* xxxvj. Hy. VIII), which established the conjoint Company of the Barbers and Surgeons of London, contained an unfortunate exception, which to the present day provides a loophole through which many an offender escapes. The clause setting forth this exception, on the authority of Christopher Merritt, Fellow and Censor of the London College of Physicians, writing in 1660, runs as follows:—"Be it ordained, established, and enacted by the authority of the present Parliament, that all time from henceforth it shall be lawful for every person being the King's subject, having knowledge and experience of the nature of herbes, rootes, and waters, or of the operation of the same by experience or practise within any part of the Realme of England, or within any other of the King's Dominions, to practise, use and minister in or to any outward sore, uncome, wound, opostumacioun, outward swelling, or disease, any herb or herbs, oyntments, bathes, pultes, and emplastics, according to their cunning, experience and knowledge in any of the diseases, sores and maladies aforsaid and are other like unto the same, or drinks for the stone, or strangury, or ague, without such vexation, trouble, penalty or loss of their goodes. The forsaid statute in the forsaid third year of the King's most gracious reign, or any other Act, ordinance or statute to the contrary hereof, heretofore made, or in any wise notwithstanding." To this exception was appended a momentous condition that appears to have escaped notice in many prosecutions where the above clause has been pleaded in defence. The Act provided that the exception applied only to those who gave their help without fees for their "pains and cunning, but have ministered the same to poor people only for neighbourhood and God's sake, and of pity and charity." This point about payment has led to many evasions, which might perhaps have been not infrequently brushed aside by a prosecutor armed with the necessary determination and resources. The whole question cannot, of course, be entered into here, but it may be stated briefly that, in the existing law, there are wide powers for the suppression of quacks and quackery. The obstacle to their application lies chiefly in the lack of a prosecuting body. The Royal Colleges have betrayed their trust: the comparatively modern General Medical Council is too wrapt up in its own narrow field to seek to extend its penal powers to the prosecution of unqualified practice—although, be it noted, such powers, even if they do not actually exist, could be readily obtained. A curious apathy, indeed, appears to enshroud the question which was handled so boldly by bluff King Hal some four hundred years ago. Even the Select Committee of inquiry into the proprietary medicines has strangely neglected the historical side of the problem, which is none the less vital to its proper understanding. Clearly, some drastic revision of the situation is needed in order to defend the health of the people from the snares of reckless and ignorant quackery.

CURRENT TOPICS.

The Prince of Physicians.

At a recent meeting of the Section of the History of Medicine of the Royal Society of Medicine, Sir William Osler put forward a plea for the restoration of the tomb of Avicenna at Hamadan, which is in ruins. He also broached the subject at a meeting of the Persia Society the other day, when

Professor Margoliouth delivered a striking address upon the celebrated tenth-century Arabian physician. Born near Bokhara in 980, it is said that at the age of eighteen he had learned all the science of a physician. It is not a little remarkable that the philosophy, metaphysics and science of this Persian "Prince of Physicians" should dominate the intellectual life in Islam for four hundred years as a combination of the Aristotelian and Platonic systems. His principal work, the "Canon of Medicine" controlled for close on half a millennium the principal medical schools of Europe. It was written in Arabic and was early translated into Latin. In addition to this monumental work Avicenna also wrote a hundred large tomes dealing with various philosophical and scientific subjects. The proposal that the Persia Society should undertake the repair of his tomb seems to be a most fitting one, and it is not unlikely that the Section of the History of Medicine of the Royal Society of Medicine might be willing, together with the corresponding French Society, to contribute towards this worthy object. It is understood that the official permission of the Persian Government has been received and that a sum of £600 is needed towards the restoration and upkeep of the tomb of the "Prince of Physicians."

The Vice of Versatility.

The commonalty of mankind can grasp but one idea at a time, and it is duly suspicious of those who can do otherwise. It views any tendency to catholicity of temperament with undisguised misgiving and loves the man with the label. This primitive and unfortunate fact especially affects the medical profession. A man is labelled "doctor," and there he ends. People know that he is a doctor and that he cannot be anything else. If he tries to be something in addition he cannot be a really good doctor. In the eighteenth century there were men who could fairly encompass the sum of human knowledge. Now we specialise. And just as we are beginning to see that undiluted specialism is not the ideal of human activity, confidence in its infallibility has permanently permeated the popular pericranium. Anyone who has escaped his label is distrusted. Weir Mitchell was branded as a neurologist and had to live down a subsequent reputation for literary efficiency. There are many medical men who would stray out of their grooves, an they dare, but they know the penalty. An observer's understanding is limited by his attainments, and so the man in the street misjudges. He thinks that the man of outside abilities cannot be much good at his profession and forgets that men may toil upward in the night while their companions sleep. The wings of genius, instead of bearing men aloft, often encumber them on the earth. Once a man is classified and marked by the world he progresses at his peril. These people who will not stop growing are nuisances. They develop new characters and embarrass their fellow-men. The world in general does not think more than is absolutely necessary, and labels save thought. That is why they are so popular. Their influence is bad all the same. A mind cabin'd, cribb'd, confined by other people's limitations is of less value even than one which negatives its efforts by the multiplicity of its exercises.

Workmen's Compensation and Medical Science.

The Workmen's Compensation Acts have presented many a knotty problem to the law courts. In that way they have achieved a good deal by way of educating the public and the legal profession, and of drawing the attention of medical men to various scientific points of more or less obscurity. Not long ago a case was reported in which a workman claimed permanent compensation on the gound that, while laid up as the result of an accident, he had grown so fat as to be unable to follow his occupation. His ingenious claim was unsuccessful in court. Last week a more plausible claim was tried by the Alfreton County Court Judge. A miner was certified in May, 1912, to be suffering from miner's nystagmus, and was awarded 14s. per week compensation, payment of which was continued until January 28th, 1914. It appeared from the medical evidence that after a time the plaintiff's mental condition underwent serious changes—he became morose, and developed symptoms first of neurasthenia and later of melancholia. The question raised was whether the insanity arose out of the nystagmus. A good deal of evidence was forthcoming, but the judge eventually dismissed the application. Most medical men will agree with the view that there is no connection between nystagmus and insanity. From a scientific point of view a great deal of valuable material is wasted in the County Courts, where the conflict of medical testimony is often of a more or less inexcusable nature. All such evidence should be presented, in our opinion, as the report of an official body of investigation.

Dogs and Tramcars.

In the midst of a mass of padding in the daily papers about the Irish question, the cricket championship, and such like matters of high politics, there is still room for the things that move humanity, the straws that show which way the wind blows, the unsophisticated outpourings of the human heart, the letters to the Editor. And the subject is dogs. Should dogs ride in tramcars? If not, why not, and if so, why? Municipalities and powers differ. Some welcome our dumb companion as personal luggage, others charge him a penny—these latter mostly in Scotland, where they even refer the traveller to the book of Proverbs in the hope of encouraging him to proper tramcar behaviour. The money is not much, but it makes the dog go. Dogs, looked at in the light of tram travellers, have two points of view—the sentimental and the scientific. The standard is determined by the ownership or non-ownership of a canine comforter. Sentiment begs his dog to be loved as himself, and to share the other collateral privileges of a freeborn Briton. Science points out a pulicose polyurinous pest, a purveyor of plagues and promiscuous propagator of puking pups. And that is the view we should take up. We are under a canine tyranny of sentiment. Our own dog is perfect, and to get other people to admit it we must grant the same to theirs. We are all slaves to a conspiracy of canine content. We know that the dogs in the street do not improve the edibles so recklessly diplayed on the ground level. Yet we tolerate them. We know that dogs may carry disease—they are proverbially unclean—but because they are our personal parasites we suffer all manner of ills for their sake. All for sentiment—the great unreasoning power of reaction—the brake on the progressing world. We know it is unworthy of us, but we suffer it for the sake of flattery. The dog is the only animal that has found a god, and deity is not our everyday estate.

The Treatment of Early Mental Disease.

The change in our attitude with regard to the management of the insane, which is so striking a feature of modern medical opinion, reflects itself in a noteworthy manner in the deputation which waited upon the President of the Local Government Board the other day. The object of the deputation was the presentation of a memorial, signed by many leading members of the medical profession and by numerous Members of Parliament, asking the Board to enable and encourage local authorities to supply and establish homes for the treatment of cases of temporary or incipient insanity. The need for such homes has long been felt for patients not demanding certification, for entrance into them would be purely voluntary and without compulsion. It was urged that these institutions should not be regarded as half-way houses to asylums, and that in order to encourage the public to come to them for early treatment, they should be kept outside the jurisdiction of the Board of Control under the Mental Deficiency Act. Emphasis was laid upon the alarming accumulation of the registered insane in the asylums, and it was stated that as insanity was not being checked by the present methods, it was necessary to attack the causes of early mental instability. The preventive measures proposed would not only be a great gain to the community, but would reduce the expenditure on costly asylum accommodation, which was such a heavy burden on the rates. As Dr. Chapple rightly pointed out, the idea that insanity is a mental disease, and therefore to be treated in hospitals for the purpose, should be popularised. It is gratifying to note that Mr. Samuel, in replying to the deputation, proposed to ask the medical department of the Local Government Board to make a special study of this problem, to inquire into the experience of similar action which had been taken in Scotland, which appears to work so well, and to get into touch with the Board of Control with a view to his taking administrative action. If fresh legislation in the matter be not possible at the present juncture, the administrative machinery of the Board may be expected, therefore, to be set in motion in the near future.

Dublin Water Supply.

MOST of the world's distress is, in our opinion, due to lack of imagination, and the rest of it is due to a failure to realise in action those imaginings on which safety and progress depend. The collective intelligence cannot get away from the idea that what is will continue, nor can men picture themselves in other circumstances than those in which they are. Man is not a reasoning being; or, if he reasons, he gets no farther than the statement of premises—he shies like a nervous filly at the only logical conclusion. He does not believe in logic. He may even state his logical opinion in correct terms, but he does not believe what he is saying. People believe only what they do, there is no action divorced from belief. Belief is not an independent mental process, it is action. There is always a mental reservation in the mind of a man who says he believes this course would be the better but who takes the other course. He thinks in his heart that the other course is the better, perhaps because the stars in their courses will fight for him, or because effect does not always follow cause in his experience. Any individual in Dublin will say that the water supply must be conserved, and that a daily consumption of 14,000,000 gallons at present will bring a drought, yet the collective mind does not see why any precautions should be taken, for 14,000,000 gallons are being consumed daily in spite of repeated warnings issued by the city engineer and by the engineer in charge of the water supply. The necessity for conserving the supply has never been greater since the drought of 1893; everybody talks, nobody does. There is more faith on earth than preachers dream of.

PERSONAL.

DR. W. D. MURRAY has been elected President of the South-West London Medical Society for the ensuing year.

DR. G. FLEMING, M.B., C.M., M.R.C.P.Edin., has been appointed Medical Superintendent to the Durham County Sanatorium

DR. F. W. CRAIG has been appointed Medical Superintendent Officer of Health, and also Tuberculosis Officer, for the city of Derry.

DR. KNOWLES BONEY, M.D., was presented with the Savill Memorial Medal last week at the West End Hospital for Diseases of the Nervous System.

MR. M. W. B. OLIVER, M.A., M.B., B.C.Cantab., F.R.C.S.Eng., has been appointed Assistant Ophthalmic Surgeon to the Miller General Hospital.

THE following medical practitioners in Hull have been placed upon the Commission of the Peace for the city:—Drs. Frank Nicholson, George Gautby, and Mr. C. H. Milburn.

DR. ALEXANDER H. MACKLIN, Senior House Surgeon at the Blackburn Infirmary, has been appointed as one of the surgeons in Sir Ernest Shackleton's forthcoming Polar Expedition.

SIR RONALD ROSS, K.C.V.O., F.R.S., will deliver the biennial Huxley Lecture at Charing Cross Hospital Medical School upon the occasion of the opening of the winter session thereat on October 1st.

A COMPLIMENTARY dinner was given the other day at Oxford to Mr. Horatio P. Symonds, Senior Surgeon to the Radcliffe Infirmary, upon the occasion of the presentation to that institution of a portrait sketch by Mr. J. S. Sargent, R.A.

DR. AND MRS. SCURLOCK, of Tredegar, were the recipients lately of a handsome presentation from their many friends and patients in the Georgetown district as a token of the respect and esteem in which they are held by all classes.

DR. JOSEPH GIUSANI, of Cork, was presented the other day with a handsomely illuminated address and a silver tea set by the Grand Order of Israel (Sion Lodge) in token of his valuable services rendered to the society for a period of over 25 years.

A PRESENTATION of a Belsize two-seater motor-car was made on the 14th inst. to Dr. Emyr O. Price, of Bangor, in recognition of his services to the North Wales Branch of the British Medical Association, particularly in connection with the National Insurance Act.

DR. J. MACPHERSON LAWRIE, the Medical Superintendent of the Princess Christian Hospital and Sanatorium at Weymouth, was presented last week with his portrait in appreciation of his services. Mrs. Lawrie was presented at the same time with a service of plate.

DR. THOMAS CUNNINGHAM PENFOLD, M.B.,Edin., D.P.H., Medical Officer of Health for the Hexham rural district and for the Prudhoe urban district, has been appointed to succeed Dr. J. Finlay Macdonald as Medical Officer of Health for the Auckland rural district.

DR. JAMES NIVEN, LL.D., M.B., Medical Officer of Health for Manchester, was the recipient last week of the gold medal awarded annually by the Council of the Royal Institute of Public Health to a public health official "in recognition of conspicuous services rendered to the cause of preventive medicine within the British Empire," more especially in connection with his work in the direction of the prevention of tuberculosis.

CLINICAL LECTURE

ON

THE TREATMENT OF OBESITY.

By ROBERT SAUNDBY, M.D., M.Sc., LL.D., F.R.C.P.L. & I.,

Professor of Medicine in the University of Birmingham : Consulting Physician to the General Hospital, Birmingham.

Medical practitioners are often consulted on the subject of corpulence, as the inconvenience is obvious, and the late R. A. Proctor, the well known writer and lecturer on astronomy, graphically described his own condition as being like that of a man who was wearing three overcoats with the pockets loaded with stones. Yet in spite of their sufferings comparatively few are willing to persist in the *regimen* necessary not only to reduce their weight, but to maintain it at a proper level. They are content to follow a course of diet for a few weeks, and they get off a few pounds either by visiting a German watering place or by following the directions of a medical adviser at home, but after a longer or shorter time they fall back into their former habits and speedily regain the weight lost.

It is usual to divide these cases into two great classes, the plethoric and the anæmic, and these correspond to clinical conditions that can be readily recognised.

The plethoric type consist usually of well-grown, well-developed persons who enjoy the best of health and are often active and vigorous, by no means disinclined to take exercise, and frequently decidedly athletic and good at games. The tendency to corpulence usually shows itself soon after thirty, or even before, and increases with age. They generally suffer from *akoria*—that is to say, the excessive appetite which results from absence of the feeling of satiety, so that without being especially hungry they eat an unnecessarily large amount of food. This condition is usually hereditary, a family history of obesity being discoverable in something like two-thirds of the cases; and it is often also associated with a family history of gout, renal colic or gall stones. They are decidedly eupeptic individuals, who enjoy life, and at least up to middle age possess the best of health, but after passing forty they begin to manifest such disorders as acute gout in the great toe or in some other joint, or albuminuria or glycosuria. In the latter half of life they frequently develop Bright's disease or diabetes, and on the whole we may regard this form of obesity as a condition by no means favourable to longevity; they die at or soon after sixty as a rule. The type is fairly equally distributed between the sexes.

The anæmic type of obesity is more common in women than in men. It may be induced by anything that causes ill-health, supervening not uncommonly after a serious illness, such as typhoid fever. The subjects of this form of obesity, unlike the former class, are not, and do not look, as if they were in good health. They are pale, flabby, and disinclined to take exercise; they are fastidious in their appetites, and they suffer from minor ailments, such as constipation, dyspepsia, headaches, menstrual irregularities, or catarrhs, but they are less prone to develop the graver constitutional forms of disease met with in the plethoric group.

The ætiology of the two groups is essentially different; in the former there is merely an exaggeration of normal metabolic processes, a sort of excess of what happens in all healthy persons. The formation of fat is a physiological process which is more marked under certain conditions. The young girl at puberty normally puts on a layer of fat which rounds her form and conduces to the beauty of her figure at that time of life, while boys at the same age are thin, and remain so for another ten years. Bouchard showed that at the age of seventeen the consumption of carbohydrate to the pound of bodyweight is 54 grs., while at the age of twenty-five it falls to 42, the balance of unconsumed carbohydrate being usually stored up as fat. After this age there is a progressive failure in sugar consumption associated with a gradually increased weight, so that at the age of sixty the sugar consumption falls to 18 grs. per lb., and although these figures are of course subject to individual variations they illustrate the general rule that after thirty most people tend to accumulate fat. The extent to which they do this doubtless depends upon their habits, as to, on the one hand, the amount of exercise taken, and on the other the amount of food consumed. Rubner's scale is generally accepted as expressing the requirements of the normal body; a man doing a moderate amount of work requires 41 heat units for each kilogrm. (2 lb.) of bodyweight, so that a person weighing 70 kilogrms. (10 st.) would require daily about 3,000 heat units; but this quantity is easily exceeded. For example, beer readily supplies a large amount of nutriment, in round figures about 400 heat units or great calories to the pint, so that it is not surprising that those who not only live well in the matter of food, but drink in addition two or three pints of beer daily, accumulate a large amount of fat. It is not only beer that is fattening from its combination of carbohydrate with alcohol, for even sugarless whisky gives 105 heat units to the ounce. Obviously it is easier to take an additional 1,000 heat units in the shape of beer than in the form of whisky, for while two and a half pints of beer would be regarded by most persons as a strictly moderate allowance, a daily dose of half a pint of whisky would be generally considered to verge on intemperance. Although fat supplies by far the largest amount of heat units it is rarely to be blamed for producing corpulence amongst English people, as their taste for this article of food is limited. It is generally to over-indulgence in carbohydrates that corpulence must be attributed, and these are chiefly eaten as bread. Most stout people are great bread eaters, and if bread is eaten with butter its effect is the more likely to be pronounced. As already stated, these people live vigorously; if they are hearty eaters they, as a rule, lead by no means sedentary lives, but take a fair share of exercise; in fact, they sometimes complain that the more exercise they take the more they eat and the stouter they grow.

If this is a correct account of the causation of these cases the principles of treatment are simple. All we have to do is to reduce the number of heat units consumed daily. The diet must be restricted according to scale, allowing, for example, 30 heat units per kilogram of bodyweight, but we must bear in mind that in the case of an obese person we cannot allow them to reckon their actual weight, but the diet must be based upon what they ought to weigh. The French have a simple scale known as Quetelet's, which allows for every cm. over 1 m. in height 1 kilogram of bodyweight, but as we do not use these convenient weights and measures we may prepare a scale for ourselves something like the following :—

ft.	in.	lbs.
5	0	106
5	1	112
5	2	118
5	3	124
5	4	130
5	5	136
5	6	142
5	7	148
5	8	154
5	9	160
5	10	166
5	11	172
6	0	176
6	1	184
6	2	190

Having measured the patient's height and deduced his proper weight, we may allow a dietary giving 30 heat units per kilogram of bodyweight as the maximum, and this should be reduced month by month until the patient is getting instead of 3,000 heat units daily 1,500, or even less, but the effect of the diet must be watched, and something must depend upon the patient's mode of life, for if compelled to be fairly active it is not possible to reduce the food in the same way as where he can be kept at rest. Thus in a case recorded by Débove the patient, who weighed 234 lbs. (his height is not given), was kept in bed, and his diet at first consisted of two quarts of milk daily, equal to 1,600 heat units; this was reduced to one and a half quarts, then to one quart, and finally to less than a quart daily, upon which diet at the end of seven months the patient had lost altogether 54 lbs., and was reported to be in perfect health. Such a regimen is obviously only possible under exceptional circumstances. The man had been unable to work, and was content to be admitted to a hospital where the treatment was carried out without any consideration for its duration, nor does there seem to have been any difficulty in persuading the patient to submit to a monotonous regimen which was almost equivalent to starvation. Most of our patients insist upon variety in their food, and it is the duty of the physician to afford them this in any arrangements he may make for them. If we consult a diet table which should give the value of all ordinary articles of food in their contents of protein, fat and carbohydrates, and their calorific value, it will be found that it is easy to construct a varied diet if we can make free use of vegetables and fruit, cutting down the carbohydrates and fat, and allowing a reasonable quantity of animal food, so that without exceeding 2,000 heat units daily a sufficiently palatable dietary may be arranged. But it must be remembered that the ordinary British palate cares little for fruit and vegetables, and that the British housewife or plain cook possesses little skill in their preparation so that success depends in no small degree upon our ability to enlist the co-operation of not only the patient, but of his cook.

The following diet table is constructed to allow about 2,000 heat units, and will permit of being reduced to 1,500 by substituting Prolacto or Protene biscuits for the brown bread at breakfast and tea :—

Table I.

This diet contains, roughly, about 2,000 heat units.

Breakfast.—Tea or coffee without milk, cream, or sugar; a slice of lemon or saccharine may be used if desired; half a Brusson Jeune roll or four Huntley and Palmer's breakfast biscuits, or 1 oz. of toast, with butter; 1 or 2 eggs; any lean meat, game or fish; any salad or fruit in season.

Luncheon.—No soup; one dish of lean meat, poultry, game, or fish, with salad or green vegetable or ¼ lb. of potato, artichokes, or peas; an omelette or stewed fruit of any kind sweetened with saccharine; a little cheese or savoury with 1 breakfast biscuit; no butter; water or mineral water but no alcoholic drink; black coffee sweetened with saccharine.

Tea.—One or two cups of tea with a slice of lemon, but no milk, sugar, or cream; half a Brusson Jeune roll or 1 oz. of toast with butter.

Dinner.—The same diet as at luncheon; any fruit at dessert; black coffee sweetened with saccharine.

Table II.

This dietary contains, roughly, about 1,500 heat units; without the whisky about 1,300; without potato, butter, or cheese about 1,100; without bread or toast 900.

Breakfast.—A breakfastcupful of tea or coffee with 1 oz. milk, no sugar; 3 oz. brown bread toasted, no butter; 3 oz. white fish—sole, haddock, cod; 1 egg; or alternatively 2 oz. lean ham; lettuce, watercress, or a tomato.

Lunch.—Six oz. lean beef or mutton; 3 oz. potato; ½ oz. cheese; Prolacto biscuits; 1 oz. whisky with water or mineral water.

Tea.—Tea with 1 oz. milk, no sugar; 2 oz. brown bread; ¼ oz. fresh butter.

Dinner.—No soup; 3 oz. white fish with anchovy or Worcester sauce, but no butter; one small potato; 3 oz. mutton, veal, chicken, pigeon, turkey, pheasant, or partridge; cabbage, cauliflower, French beans; stewed fruit, sweetened with saccharine; savoury of fish or egg on a small piece of toast; 1 oz. whisky with water or mineral water; no other bread or toast, but one or two Prolacto or Protene biscuits if desired.

It is probable that the anæmic type of obesity depends largely upon the retention of chlorides and the consequent hydration of the tissues by what Dr. H. Iscovesco calls hydrosyntasis. This is the property by which gelatine, membrane, protoplasm, and similar tissues attract and retain water, and the amount of water so absorbed is very great, amounting to as much as five times the weight of the original sheet of gelatine used in the experiment. This process is affected by certain salts, being favoured by the chlorides of potassium, sodium, and ammonium, as well as by nitrate and sulphate of soda, while it is hindered by acetates and tartrates. In this connection it is interesting to remember that vinegar, citric acid, and citrates are popularly supposed to be remedies for obesity. Some of the advertised cures contain a certain proportion of bicarbonate and chloride of sodium, which would not favour the reducing process, as in fact Marcel Labbé has recorded a case of diabetes that became œdematous when taking 40 grms. (600 grs.) of bicarbonate of soda daily for a week. This form of obesity should be regarded therefore as a sort of œdema and calls for treatment based upon the avoidance of liquids and of those articles of diet, especially common salt, which favour the retention of water. For such cases the Schroth diet as followed at Lindewiese might be tried in properly selected cases. This cure is not popular, as it calls for a good deal of self-restraint. Each night the patient should sleep in a partial or complete cold wet pack, but where he objects strongly to the direct contact of the cold, the body may be wrapped in a thin dry sheet and then in the wet sheet, which is covered by a blanket and one or two eiderdowns. The chief feature of the diet is the abstinence from all liquids which should extend from half a day to five or six days according to the case. A beginning may be made by abstinence from any liquid at the mid-day meal. The second point is the periodic use of wine as a drink, and upon this considerable stress is laid; it is believed to act by its salts and by its diuretic action as well as by its alcohol. No water may be drunk during the cure, indeed its use is said to be attended with danger, but in the early stages of treatment barley water or thin gruel or a cup of cocoa is allowed. The wine generally prescribed is a thin, light, rather acid country wine, either red or white; probably a low-priced still Moselle answers the purpose as well as it can be realised, if an attempt is made to carry out the cure in this country. The third point is the reduction of the amount of food, especially of the fats and proteins, while fruits, vegetables, and cereals may be eaten at discretion. Schroth laid great stress upon the value of good air, and insisted upon his patients living and sleeping as far as possible in the open air. At the commencement of the treatment breakfast should consist of two or three dry rolls or a cup of cocoa; at midday one or two tablespoonfuls of oatmeal porridge, rice or sago pudding, or under certain circumstances a little meat with vegetables and fruit compote, but nothing is allowed to drink; at night two or three rolls or bread and milk. During the first few days the patient may take a few mouthfuls of drink made with barley or oatmeal, lemon juice, and sugar, but later on this must be replaced by wine, which may be at first diluted with water and sweetened, but afterwards should be drunk absolutely pure. The quantity of wine may vary from 7 to 15 oz. daily. Liquids should be taken about four hours after food, but never at meals; with the liquid the patient may, if he desire, take a few mouthfuls of bread or biscuit. This stage of the treatment lasts from three to five weeks. In the second stage the wet pack, which should now be complete, is continued, while the food is restricted to five or six rolls daily, weighing altogether less than 3 oz., and being therefore equivalent to no more than 200 or 300 heat units, but under certain conditions the patient is allowed to take some boiled oatmeal or rice in the middle of the day. After a course of dry days, which varies from one to four or five, the patient is allowed to have one drinking day, and it is usual to begin by taking the wine warm. This stage lasts from three to five weeks, and it is then followed by a pause lasting five or ten days. Finally, the patient enters upon the last stage, which consists in a gradual return to normal conditions of life. Each case requires to be treated according to its special condition, and the method is one which could hardly be carried out satisfactorily away from Lindewiese, or in one or two special establishments in Germany, where the same principles are followed. It is not called a fasting cure, but it is an exceedingly low diet, comparable to the fasting methods that are popular in the United States, but differs chiefly in the restriction of liquids.

The advocates of the Schroth cure maintain that it not only differs in this respect from the simple fasting cure, but that it is much less dangerous, as the tissues are not completely starved, and the temporary restriction of liquids stimulates the vitality of the cells. It is said to be easy to carry out, calling for no apparatus which is not available in any ordinary household, as it is easier to give a wet pack than a bath, and this is especially the case with corpulent persons who are not easily moved. It is further said to increase the number of red blood corpuscles and the percentage of hæmoglobin.

Myxœdema is a form of obesity which has been definitely shown to be due to the deficient action of the thyroid gland. Although the patients take only a small amount of food they nevertheless gain weight, and there is a great analogy between such cases and many of the examples of anæmic obesity which are commonly met with. In myxœdema atrophy of the thyroid gland is a distinct feature, and in the absence of this symptom such a diagnosis would be doubtful, but it is quite probable that in many of these cases, though there may be no reduction in size, the function of the gland is depressed. This view is supported by the fact that the administration of thyroid gland has been found useful in many cases of obesity; this treatment, which was introduced more than twenty years ago, has been discredited by the abuse of the remedy by the over-large doses which patients took in their anxiety to produce a rapid effect; but there has been no failure on the part of the remedy in properly selected cases to produce the desired result. If in addition to treatment by diet a 2½ grs. tabloid is given every night at bedtime no disagreeable effects are experienced, and the dose may be gradually increased, but when these larger doses are employed the use of the drug should be omitted every third or fourth week; it is necessary to watch the effect upon the pulse rate, and where this exceeds a hundred the tabloids should be discontinued for a time.

Table III.

This diet contains about 1,500 heat units; it may be reduced by gradually omitting the roll or breakfast biscuits, which may be replaced by Prolacto biscuits.

Breakfast.—Fresh fish or fresh meat with any green vegetable; 2 Huntley and Palmer's breakfast biscuits, or half a Brusson Jeune roll; nothing to drink; no salt; 2 hours later half a pint of hot water with a slice of lemon in it.

Luncheon.—Lean beef or mutton, chicken or white fish; any green vegetable or salad; any stewed fruit; 2 breakfast biscuits, or half a Brusson Jeune roll; no butter; nothing to drink; no salt; 2 hours later half a pint of hot water with a slice of lemon in it.

No tea.

Dinner.—No soup; any white fish; any meat, poultry, game, any green vegetables; any stewed fruit; savoury; 1 breakfast biscuit; no salt; nothing to drink.

If more bread substitutes are required a few Protene, Prolacto, or Kalari biscuits may be taken.

Before going to bed half a pint of hot water with a teaspoonful of sodium phosphate should be sipped slowly.

Karell's milk cure may be employed for the treatment of obesity, but as originally prescribed it is not very appetising. During the first week the patient gets every four hours a glass of skimmed milk from 2 to 7 oz. in amount, which in winter may be warm, and water or mineral water is allowed in addition. In the second and third weeks a little toasted white bread and a small portion of salt herring is added, and after one or two weeks of this *regimen* the milk at one meal during the day is omitted and soupe au lait—that is, milk thickened with a little flour—is given instead. This treatment should be maintained for five or six weeks, and the use of stewed prunes and baked apples is allowed in order to overcome constipation. As this diet consists at most of a quart of milk a day the calorific value is very low, and the patient must be nearly starved. In Jacob's modification for the first week the patient is allowed 1½ pints of milk daily, given in divided doses, and for the next week in addition an egg in the morning and a biscuit at night; then gradually two eggs, a little minced meat, vegetables and rice pudding are added. At the end of twelve days the patient returns to his ordinary diet, but the amount of liquid should not exceed 1½ pints daily for the next few weeks.

The method of Dr. Galisch is to give very little food after the midday meal. Thus, for example, at breakfast the patient takes a cup of tea with bread and butter, and if he is so hungry that he cannot wait for lunch he may have an egg with a small slice of bread and butter at ten o'clock; at one o'clock the meal is composed of meat, vegetables, salad, and stewed fruit; tea time, coffee with a biscuit, or bread and butter; in the evening nothing but a small piece of bread and butter. It is important that the quantity of food at breakfast and luncheon should be sufficient to satisfy the patient. Under this regimen he claims that his patients lose regularly 1 or 2 lbs. a week.

The cases falling into the second class are undoubtedly more difficult to treat than those in the former group. They require much more supervision, and there is greater risk of doing harm instead of good by altering their mode of life. Changes in the diet should be made gradually; remedies should be used in small doses and their effects carefully watched; any complications should be sought out, and if possible removed, and the assistance of fresh air, especially of mountain or sea air, should be secured. As many of these patients are unable or disinclined to take active exercise, massage and passive exercises are extremely useful. In the present day in all large centres there is no difficulty in obtaining the services of well-trained operators who can carry out Swedish exercises, and at most watering places both at home and abroad there are institutions at which these can be obtained. An ingenious adaptation of faradism to produce the effect of general muscular exercise is the Begonié Chair, which is in fact a large electrode, the patient being fastened by means of sandbags, and the current when turned on stimulating the contraction of all the muscles. From what I have seen of it its application does not appear to be unpleasant, and it is claimed to effect a rapid reduction in body weight, but it has been in use too short a time for a final opinion as to its value to be expressed.

NOTE.—*A Clinical Lecture by a well-known teacher appears in each number of this Journal. The lecture for next week will be by Edmund Cautley, M.D. Cantab., F.R.C.P.Lond., Senior Physician to the Metropolitan Hospital, and to the Belgrave Hospital for Children. Subject : "Abdominal Tuberculosis."*

ORIGINAL PAPERS.

A CASE OF TUBERCULAR IODISM SIMULATING GUMMA OF THE EYELID.

By SYDNEY STEPHENSON, M.B., C.M. Ed., F.R.C.S.,
Ophthalmic Surgeon to the Queen's Hospital for Children, King Edward's Memorial Hospital, etc.

GEORGE W., æt. 30, attended my out-patients at the Kensington General Hospital for the first time on December 4th, 1907.

The following history was given by the patient—Gonorrhœa in November, 1906, lasting until March, 1907, that is to say, longer than any other gonorrhœa from which the patient has suffered. Towards the middle of March, 1907, a spot came out on the right knee, and was followed by others on the forehead, right forearm, left upper arm, and towards the end of that month, by "sores" upon the legs. In June or July last the patient's throat became ulcerated.

On August 14th the patient consulted Dr. David Walsh at the Kensington General Hospital. A diagnosis was made of tertiary syphilis. The notes which follow were transcribed from the patient's case-sheet:—" No sore throat or headaches. Primary sore last Easter. Treated with mercury since. Large crusted serpiginous syphilide on left thigh. Others have left pigmented superficial scars."

When I saw the patient on December 4th, 1907, his condition was as under:

The outer half of the left lower eyelid is red and swollen but not tender. At first sight, the appearances reminded one of an abscess in the substance of the eyelid. On palpation, however, it was obvious that the tissues of the lid were infiltrated, and the condition recalled a gummatous process. Another infiltrated area was present in the substance of the left cheek, one inch or so above the upper lip. Below the left jaw was a carbuncular looking mass, discharging pus by several fistulæ. The right ear showed a scaly eruption, not unlike eczema. On the back of the scalp, situated over the occipital bone, was a crusted sore. A number of pigmented, supple, superficial cicatrices, possibly the remains of cutaneous gummata, present over right knee, both legs, left thigh, left buttock, and right forearm.

The infiltrated lesions of the lower lid, cheek, etc., closely resembled gummata, but on reading Dr. Walsh's further notes, it became quite clear that they represented that rare form of iodism known as "tubercular iodism."

Dr. Walsh's notes ran as follows.—The patient was treated locally with ammoniated mercury ointment and internally with potassium iodide (grs. 10) and citrate of iron and ammonia (grs. 10) thrice a day. His attendances at the Hospital were somewhat irregular, having been registered upon the following dates: August 28th, September 25th, October 19th, and November 16th. On the last-named date the potassium iodide was discontinued owing to the existence of "well-marked iodide papules face, etc."

The patient stated that a small swelling, an "iodic papule," had existed towards the centre of the left lower eyelid for about a fortnight, and that the swelling had become greater during the three days before he consulted me.

PROGRESS AND TREATMENT.

Boric lotion and oleate of mercury (10 per cent.) were prescribed to be applied to the affected lid.

December 11th, 1907.—The left lower eyelid is now tender, and the disease process has extended to the whole of that structure. There is definite ulceration of the upper aspect of the outer end of the swollen lid.

December 14th, 1907.—The outer half of the left lower lid is now ulcerated, and the rest of the lid is infiltrated. The parts are tender. The likeness to a gumma becomes more and more pronounced. Sajodin, one gramme twice a day, administered internally, and the ulcerated surface to be treated with iodoform.

December 18th, 1907.—Condition, as shown in the coloured sketch, has improved. The left lower lid is occupied by a reddish swelling, more marked in the outer half than elsewhere, and the parts are slightly tender. A shallow ulcer, with clean-cut non-indurated edges and nodular floor, occupies the upper part of the outer half of the affected eyelid. It measures 3 cm. by 1 cm. The other sores, one on the left cheek and the other below the left side of the chin, are also in process of healing.

December 28th, 1907.—The ulceration of the left lower lid has now almost healed, and the infiltration of the parts is much less marked. The other lesions are also doing well.

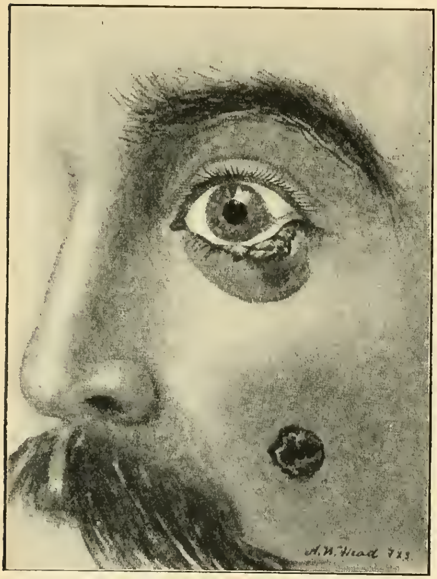

Fig. 1.—Case of Tubercular Iodism Simulating Gumma of Eyelid.

January 15th, 1908.—The ulceration of the lower lid has healed. But there still remains some reddening and thickening of the outer half or two-thirds, with a few scales of desquamating skin at the lower part of the thickened area.

Remarks.

Of the various skin lesions that may on occasion follow the internal administration of potassium iodide, that described in the present communication is probably the rarest. At one stage the resemblance to gumma was most misleading. I was not surprised accordingly to find the following remarks made upon the subject in the fourth edition of Dr. Norman Walker's "Introduction to Dermatology" (p. 69).

"In rare cases the lesions produced are at first solid, and later break down in a manner so similar to the gumma, that one ot two patients have been dosed into their graves by the pushing of the very drug which was the original cause of their trouble. In others, large solid tumours have developed, leading to the mistaken diagnosis of malignant disease or even leprosy."

In reference to the present case a couple of points appear to be worthy of notice.—First, that the potassium iodide had been discontinued eighteen days before the patient was first seen by me; and, secondly that the several lesions healed under the administration of another iodine compound, namely sajodin.

Remarks by Dr. David Walsh.

There is a good deal yet to learn about the iodide eruptions. In the foregoing case the original papule so exactly simulated a gumma that on clinical appearances alone anyone would naturally have diagnosed that condition. A similar neoplastic growth, however, is seen in the bromide papules met with sometimes in epileptic patients in whom there is no suspicion of syphilis. There is much similarity between the bromide and the iodide nodules—they are of rapid growth, are practically confined to the face and tend to early ulceration, while they are both serious conditions and sometimes end fatally. Another interesting fact is that both are caused not infrequently by the use of patent medicines: the one containing iodide and sold in the guise of "blood purifiers," and the other, bromide, entering into the composition of many nostrums sold for the "cure" of fits.

It is an old observation that both iodine and bromine are found actually present in the lesions. Many years ago I suggested that their presence was due to the excretion or attempted excretion of the irritant metal concerned. In any case it may be reasonably assumed that the irritation forms the starting point of the nodule. How it comes to be deposited in one particular spot is an interesting speculation. Where the lesion originates in an excreting gland it seems likely that there may be a direct excretory irritation of the gland with secondary periglandular inflammation and invasion by pyogenic organisms. In one case of iodism under my notice there was cardiac trouble and feeble circulation, conditions that seemed to me likely to favour local deposition of the irritant. So far as I remember a weak pulse is invariably associated with iodism, a fact that is compatible with the depressant action of the iodides on the heart.

The recurrence of iodism and bromism is an interesting point. During a continuous administration of either drug it is not unusual to meet with recurrent attacks of dermatitis. The mere fact of accumulation in the body is thereby practically excluded—as a matter of fact, some persons give larger doses of the iodide in order to cure the associated drug dermatitis. The likely explanation seems to me that the iodism is usually a phenomenon of weakened circulation and its first effects are seen in or near cutaneous glands, where the local circulation is likely to feel the first effects of a less forcible bloodstream. At any rate the relation of bromism and iodism to circulatory conditions would form an interesting and possibly fruitful subject of investigation.

At a recent meeting of the New London Dermatological Society a case of mixed bromide and arsenic eruptions was shown by Dr. Samuels. The patient was an epileptic who had taken bromide of potassium for years. There was a bromide papule on the cheek and smaller lesions on the eyelids which reminded one both in site and general appearance of Mr. Sidney Stephenson's case.

My own view is that neither the bromides nor the iodides should be given continuously in any case. Both are potent drugs, and there is abundant experimental evidence on record of their effect on the kidneys and other organs of the lower animals. In spite of obvious warnings of the kind we most of us continue to introduce for indefinite periods into the bodies of our patients drugs that exercise a powerful irritant effect upon vital internal organs. It has always seemed to me that some part, at any rate, of organic disease of obscure origin may be due to our well-meant, but ill-regulated, therapeutic efforts.

So far as the ill effects of the iodic papules are concerned they are probably almost entirely toxic, due to the development of secondary pyogenic organisms in the lesions. These organisms are probably in many cases staphylococcic in their nature. The indications for treatment are simple. First, to cut off the drug absolutely; secondly, to give the patient rest, cardiac tonics, and to flush the kidneys with water or demulcent drinks; thirdly, to treat the iodic papules as specific pathogenic infections rather than as a mere drug eruption, by local antiseptic measures and by attempting to immunise the blood with vaccines, preferably autogenous.

CO-ORDINATION IN ADMINISTRATIVE METHODS IN DEALING WITH INFECTION AND INFANTILE MORTALITY. (a)

By G. CLARK TROTTER, M.D., Ch.B., D.P.H.,
Medical Officer of Health and Tuberculosis Officer, Paisley.

In bringing before you for discussion the question of how far our administrative methods in the several and still increasing ramifications of the public health service can be co-ordinated so as to secure concentration of effort and efficiency, I was prompted by the fact that to some extent at least our procedure in Paisley differs in detail from that of other towns. This being so, the subject thus lends itself to comparative criticism; it must be remembered, however, that the area and population of Paisley are such that supervision is possible by one officer, and that if the town were larger further division of labour might be necessary as regards some of the work which is now combined.

It must long have been the opinion of Medical Officers of Health—in connection with infectious cases dealt with, both as regards results and the amount of expenditure involved—that, judged by a commercial standard of value in return for the amount spent, inequalities predominate. To a considerable extent hospital treatment has come to be looked upon in the case of the compulsorily notifiable infections, as an arrangement to suit the convenience of the citizens. This has come about by the well-meant pressure which was brought to bear upon the householder—at the time the Infectious Diseases (Notification) Act became law—with the object of having cases removed to hospital. Now, undoubtedly this procedure was wise, as the diseases small-pox, enteric, and I believe also diphtheria from the nature of the infection are best dealt with in hospitals, but along with these diseases others as scarlet fever were placed in the same category. The result has been that practically all these compulsorily notifiable diseases are treated in hospital. The cost of scarlet fever cases is the cause of a large annual expenditure, for which little can be shown from the point of view of prevention, and the disease is very much less fatal than measles or whooping-cough, which do not get anything like the same attention.

Now by better co-ordination of our administrative methods much might be accomplished. In the past there has been too little differentiation in the methods of dealing with infections, they have been grouped broadly as compulsorily notifiable and non-scheduled; perhaps looked upon, might I say, somewhat as compulsorily to receive attention involving expense in the first class, and but little in the second. The way has been opened as it were, within the last few years, for an alteration in our administrative methods, instead of a universal label "infectious" with an additional tag "urgent" on notifiable diseases, much more attention is being directed to considering each disease strictly according to the precautions that can be taken. The Public Health (Scotland) Act of 1897 was amended in 1907, instead of the words "free from disease and infection" the words "proper precautions against spreading disease and infection" were substituted, this modifies sections 57, 58 and 59 dealing with prevention of infection. While the idea was to obviate harshness in cases of phthisis, adoption of notification of which was then being urged, the change effected is not limited in its application, inasmuch as the "proper precautions" to be taken vary according to the disease, and alter with the advance of our knowledge of particular infections.

With the object of gaining information as to the working of several units of the public health service in connection with infection and infantile mortality —in ways different from the usual routine—I made inquiries of the Medical Officers of several boroughs. I find that the changes effected have been mainly with the view of dealing with scarlet fever cases, and although the object of this paper is not to discuss the merits or otherwise of any particular treatment, the fact of such radical change being brought about and sanction being granted by the Local Government Board, who permit domiciliary treatment, while not allowing any particular treatment exclusively to be insisted on, makes it necessary for me to review briefly the information gleaned, as it has a bearing both on the question of co-ordination between home visitation and hospital treatment, and in a general way on the whole administration, as it shows how advantage can be taken of the modification of the Act.

The burghs of Forfar, Clydebank, and Barrhead have for some time been treating cases of scarlet fever at home. In 1913 in Forfar 91 cases were treated in hospital, and 270 at home; in Clydebank 76 cases were treated in hospital, and 52 at home; while in Barrhead 3 cases in hospital, and 21 at home. The treatment is on the lines advocated by Dr. Milne; in the first two burghs a special nurse is employed to carry it out, but in Barrhead the medical practitioner in attendance is paid £1 per case, and the mother of the child is provided with a throat brush and carbolic oil to swab the throat, and eucalyptus oil for rubbing. In the last-mentioned burghs the cases removed to hospital were in connection with a dairy, but otherwise all cases are treated at home, the other children being kept a week from school, the children in many cases sleep together. I have mentioned these facts as apparently no injurious consequences have followed, and what is being done cannot be overlooked, and is bound to be commented on when neighbouring towns are adhering to hospital treatment. The approval by the Local Government Board under Section 66, Sub-section (1) (*d*) of the Public Health (Scotland) Act, 1897, in the case of Barrhead, was given on condition that the medical practitioners were left free to prescribe and administer whatever treatment they consider most appropriate in each case, and it was distinctly stated that approval could not be given to "Milne" or any other particular form of treatment. In Paisley practically all the cases of scarlet fever are treated in hospital. There were only three cases at home last year, so as regards home treatment of this disease I have no comparisons to offer. The information before given has, therefore, been got from towns where home treatment is in vogue. I have sometimes thought it is frequently a blessing in disguise for some children to have a mild attack of scarlet fever; after five or six weeks in our Borough Hospital the change in their general health and condition is so very marked, they are, as it were, physically recuperated and set up for some time at least. Measles, whooping-cough, chicken-pox, and mumps cases are visited, a special nurse being requisitioned from our hospital for this purpose, the cases mostly being notified through the schools. The Local Authority does not, as in the case of certain other infectious diseases, *generally* (that is, to suit the convenience of the citizens) provide for hospital treatment of measles and whooping-cough, but when it is obvious from the home conditions that the child has not a reasonable chance of being properly treated, it is left to the discretion of the Medical Officer of Health to admit the case to hospital. In 1913 the measles cases recorded numbered 1,497, whooping-cough 454, chicken-pox 525, and mumps 827. Sixty-five cases of measles were treated in hospital.

(a) Paper read at the Royal Institute of Public Health, Edinburgh Congress, July 20th, 1914.

But with regard to methods of dealing with infantile mortality, as the result of the inquiries I have mentioned, I have not found that any town is working on exactly similar lines, for we have in connection with our Municipal Dispensary, which is primarily for tuberculosis, observation beds, and on the principle that "diarrhœa" and "wasting" might in infants and children be possibly due to tuberculosis, these cases are admitted for observation, and, with but few exceptions, are found to be the result of improper feeding. I believe that in Liverpool an experiment was tried of drafting such cases discovered on visitation into various institutions for treatment, but this was not continued, the results not justifying the expenditure, but then the conditions are different there, and the experience not comparable, as all are not under one control. Last year in Paisley we admitted twenty-seven such children suffering from diarrhœa, malnutrition, etc., nineteen were dismissed well, six considerably improved, while there were two deaths. This year the experiment has been continued, and a larger number, for the time dealt with, about twenty having been treated. My opinion is that in a proportion of the cases which come under the observation of the health visitors, this is the only feasible method that has any chance of success. It is quite useless, as is done at some dispensary consultations, to give, say, a powder, with directions regarding diet, to the mother; the child is by the time advice is sought in such condition that nothing short of removal for a time from its environment, together with indoor treatment, for a few weeks if necessary, will be of any avail. After dismissal the visits of the health visitor to the home will in many cases require to be continued to ensure proper attention being paid by the mother.

Now to summarise the co-ordination which might be recommended. The Medical Officer of Health must necessarily be in close touch through the visiting inspector, nurse, or nurses, with all the cases—infectious, tuberculosis, or infantile (visited under the Notification of Births Act); in a country district probably the visitation duties can be performed by one person. Where domiciliary treatment has not received approval of the Local Government Board, this might be obtained on board lines, as in the case of the Burgh of Barrhead, for even if not used as a routine, it in times of epidemics may prove a useful asset.

The dispensaries, and these now are largely in use for treatment of tuberculosis, should freely be used as advice centres, not for that disease alone, but for such cases as fail to get medical attention. There is no definition to limit the term "infectious disease" of the Public Health Act to compulsorily notifiable cases—the term may embrace pneumonia, syphilis, diarrhœa, etc.—in fact, to a very large extent the recommendations of the Minority Report on the Poor Law could practically be acted upon and treatment provided with the object of lessening mortality, which next to prevention of disease is the aim of our public health administration.

THE STATE IN RELATION TO THE PROMOTION OF MEDICAL RESEARCH. (*a*)

By SHERIDAN DELEPINE, M.B., C.M., M.Sc.,
Professor of Public Health and Bacteriology, and Director of Public Health Laboratories, University of Manchester.

Up to quite recently most of the benefits which the State has derived from the scientific work done in this kingdom have been conferred upon it by men with private means or receiving grants from private persons, associations, or societies, etc. Most of these grants were intended to meet experimental expenses, and their recipients, except those with private resources, had to earn their livelihood by the exercise of a profession which very rapidly claimed the best part of their energies.

The successful cultivation of pathology and preventive medicine—that is, of the study of the causes, effects, and prevention of disease, generally demands a considerable expenditure of time and of money, and the co-operation of many trained observers is often essential to success. Up to about thirty years ago no special provision had been made for this kind of study. What had been accomplished before then was the outcome of the energies of enthusiastic clinicians and young morbid anatomists awaiting promotion to some clinical post in various hospitals. There existed a few chairs of pathology, but these were associated with heavy clinical duties. There was no endowment applicable to pathological research. The first chair of pure pathology was that created in Aberdeen in 1882; the Cambridge chair dates from 1884. In 1891 a chair of pathology was endowed in Manchester, and since then that science has been recognised as a subject deserving a full chair by all modern British universities.

During the same period the public health service, as we understand it at present, became organised for the first time. It may therefore be said without exaggeration that the arrangements made for the systematic study of the causes and prevention of disease are still in their infancy. The new universities, which owe their existence to the liberality and foresight of enlightened citizens of some of the great provincial towns, have of late

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(*a*) Presidential Address before Section of Sanitary Science and Preventive Medicine, Congress of Royal Sanitary Institute, Blackpool, July, 1914.

received Government grants, which have gradually become more and more substantial, but these grants have been chiefly for teaching purposes.

Some important research institutes, such as the Lister Institute, the Usher Institute, and the Thompson Yates Laboratories, have been endowed by private benefactors since 1891. The College of Physicians in London and Edinburgh had not long before created research laboratories. A partly self-supporting public health laboratory was established in 1892 in Manchester. More recently funds, such as the Cancer Research Fund, have been raised for special purposes. These are indications of the efforts which have been made during the past twenty-five years towards the improvement of higher education and of research facilities, but with all that, the number of desirable posts open to those who wish to devote themselves to a career of scientific research are still very few, and the prospects offered to those who would spend a few years in research are not encouraging.

The creation of chairs of pathology and allied subjects might have given greater opportunities for research had not the teaching and other duties connected with many of these posts been so heavy and the funds available for research so small. There has, however, been a gradual improvement during the past ten or fifteen years in these respects, and there are now in the United Kingdom between fifteen and twenty centres where the amount and importance of research work could be considerably increased if funds were available for meeting the cost of experimental work, and giving to research workers adequate remuneration for the time spent in investigations, from which they can expect no other material reward. Even then certain improvements would still be needed to place the relation of scientific laboratories with certain Departments of State, local authorities, and hospitals, on a footing more favourable to efficient co-operation than it is at present. It would also be necessary that research institutes should not be under the control of governing bodies, capable of being influenced by the clamours of popular craze-mongers meddling with things which are beyond their understanding or asking for the abolition of imaginary abuses.

Much of what I have said about the position which the State has taken with regard to medical research in the past is well resumed in the following quotations from the Final Report of the Departmental Committee on Tuberculosis, Vol. I., 1913, p. 13, which at the same time gives hope for better things in the future :—

> "38. by Sec. 16 (2) of the National Insurance Act, the sum of one penny per insured person payable out of monies provided by Parliament may be retained by the Insurance Commissioners, in whole or in part, to be applied in accordance with regulations made by them for the purpose of research.
>
> "According to the latest available returns this sum should amount at present to about £57,000 per annum. It will probably show a small increase in future years in proportion to the natural increase in the number of insured persons."
>
> "This provision marks a most important development in the attitude of the State towards scientific research into the causes, treatment and prevention of disease. Hitherto, apart from a small annual sum expended by the Local Government Board and occasional grants for particular objects, the State has, in the main, left research to voluntary agencies. The Committee welcome the fact that by the National Insurance Act a considerable sum of money is now permanently available for the purpose of research.
>
> "At the same time the Committee wish to express their high appreciation of the valuable work which has been rendered possible by voluntary effort in the past, and their opinion that research under the National Insurance Act should be organised in such a way as not to discourage either voluntary contributions or voluntary research towards the same ends. The aim should rather be to stimulate and co-operate with voluntary agencies."

The policy outlined by the Departmental Committee appears to be wise in so far as it suggests the utilisation of existing agencies. It is, however, by no means certain that this general policy will be adhered to when the scheme comes into work, and that stimulation of and co-operation with voluntary agencies means also the assisting of these agencies.

The matter has now been under consideration for over a year. An advisory council and an executive committee have been appointed by Mr. Lloyd George, "as Minister responsible to Parliament for National Health Insurance" (minutes of appointment of Advisory Council for Research, January 20th, 1913), under the very able chairmanship of Lord Moulton. Nothing definite as to the work of the council and committee has been made public so far. It is, however, generally known that two widely different policies are possible—viz., one of complete centralisation, and one of devolution combined with limited centralisation. As the scheme finally adopted may have a considerable influence upon the further development of preventive medicine and public health, it appears to me desirable that the matter should receive the careful consideration of all who are interested in the public health service. The advisory council and the executive committee consist of persons belonging to State departments, institutions, and associations interested in the prevention and treatment of disease, and some of the members have been actually engaged in research. These members cannot be said to represent the bodies to which they belong, because they have not been elected by them. It is, therefore, most desirable that those who are interested in the matter and in a position to form an opinion should make known the views which they hold, as this may prove of assistance to the advisory council when the time arrives for them to come to a decision.

With the object of stimulating criticism I propose now to show how, in my opinion, a policy of complete centralisation would affect medical research. In the first instance I wish it to be clearly understood that what I mean by centralisation and decentralisation or devolution applies only to the actual work of research, and that, whatever method was adopted to carry out that work, some general guidance would be needed to indicate the nature of the investigations, to co-ordinate the work done by various investigators, and to utilise its results so as to meet the requirements of the State. This being understood, I will now consider a scheme for complete centralisation.

The Government would, in all probability, appoint a committee consisting of a director of research and several officers closely connected with those departments of State, such as the Local Government Board, the Home Office, etc., which are most concerned in the control of disease. Some new research laboratories would be erected, or some existing ones taken over. There would be in this central laboratory several sections, each of which would be under the special direction of a man able to take charge of some special branch of science, and to direct younger investigators working under him. This laboratory might be connected with an existing hospital, or some new special hospital might be associated with it.

During the first two or three years the bulk of the available funds would have to be devoted to the erection or adaptation and equipment of this central institution. Afterwards there would be ample means for paying adequate stipends to a limited number of research workers, and for covering experimental and other current expenses. The stipends offered to the directors and other research workers would probably be sufficient to induce some of the best investigators to come to this central institution.

Very valuable experimental work could be done under these conditions; but as the problems with which public health is concerned are in many cases greatly influenced by local, social and other conditions which vary considerably in various parts of the kingdom, certain investigations would necessitate the appointment of persons whose duties it would be to conduct researches in suitable localities. Certain researches, however, occupy many years and sometimes a lifetime. This is particularly true of statistical and of certain clinical and ætiological investigations. Some of the data necessary for such investigations have been in the past collected with great care and accuracy in some centres, at health offices, hospitals and other institutions, while in other districts the information available is less complete and reliable. The investigators sent by the central committee would, therefore, require to have access to the books and other documents kept at various hospitals, health offices, etc., in order to be able to carry out their researches. In this way the central institution would control provincial work through a new agency, entirely independent of existing local agencies, though in many cases dependent on local institutions and men for most important data.

I hardly need to enter into more details in order to make clear some of the objections which can be offered to complete centralisation of medical research. The erection of new laboratories or the adaptation of old buildings would mean a material expenditure on buildings at a time when, both in London and all through the country, too much expenditure has already been incurred for the same purpose, and when money is wanted chiefly for workers and working expenses. If the provision of exceptional facilities for research and the offer of emoluments better than those obtainable in existing laboratories caused a migration of the best workers to some central institution, this would deprive existing institutions of the stimulating influence of these men.

It is doubtful whether this bringing of research workers together in one centre would result in greater efficiency than could be secured by supplying the same workers with the necessary assistance and subsidies without displacing them.

If, on the other hand, the policy adopted was to select research workers from among the ranks of the untried younger generations, the difficulties which impair the efficiency of existing centres would not be remedied and the action of the Government would be comparable to a speculative venture. It is difficult to believe that a small Government committee would, even if composed of men of exceptional foresight, be more successful in discovering budding geniuses than the senates and councils of all the universities of the kingdom put together have been in the past. It is true that at any time a certain proportion of the professorships, lectureships, and other posts giving opportunities for research are occupied by men no longer young and whose productive activities are possibly inferior to those of younger men, but this fault would not be remedied by the creation of a phalanx of young workers in a new laboratory. These young adults would not be respected by time any more than their senior colleagues have been, and in order to obviate the age difficulty it would be necessary to provide for frequent changes in the staff of the central laboratory. There is much to be said for such a policy which is already carried out as far as possible by various universities and other institutions, but the State could make it possible for these institutions to carry out this policy more fully still and with less expenditure of public moneys by giving them the assistance necessary for the purpose in view than by creating a new body of experts entirely unconnected with existing institutions. It would also be easier, by utilising existing means, to devise some scheme by which the special abilities associated with each period of life would be better taken advantage of than could be possible if the staff of a central institution had to be maintained in a state of perpetual youth. Any attempt to place research under the direction of any man or of a small committee might for a time be crowned with success, but would ultimately impede progress and discourage that independence of thought and that love for truth which are the greatest assets of the republic of science.

One of the greatest objections to complete centralisation in medical research is, however, to be found in the fact that many of the problems of disease can be studied fully only where and when certain conditions occur which up to the present time have seldom been under the control of the laboratory worker.

It seems, therefore, desirable that an important part of the Insurance Research Fund should, in the first instance, be devoted to the assistance of centres where research laboratories are already in existence, where the public health and hospital services are well organised, and facilities exist for the clinical and pathological investigation of disease; and this assistance should benefit not only the research laboratories, but the health offices and the hospitals co-operating in the work of research. But while it is desirable that the Government should encourage and help research in as many suitable centres as possible, it is obvious that some central machinery would be needed for co-ordinating the various agencies, collecting the results of peripheral work, and indicating the directions in which further work should be done to supply the information needed by the State.

The conclusion to which these considerations have led me is that greater permanent benefit would be secured if the funds which the Government can dispose of for the purpose of assisting research in preventive medicine were used in improving and assisting existing institutions, rather than in creating an entirely new institution more or less completely disconnected from the old ones.

The creation of a central medical research institute, more or less independent of the State departments, laboratories and other institutions, which have up to the present been chiefly concerned with the study and control of disease and social conditions, might be followed by some immediate benefits; but much greater and more permanent good would be secured by helping, strengthening and co-ordinating the existing institutions, most of which are in great need of such help.

JUDGE SMYLY asked a doctor who was suing for his fees in the Shoreditch County Court what the patient had suffered from. The palintiff claimed the medical privilege of not disclosing his patients' ailments, which the judge agreed with.

CLINICAL RECORDS.

AN INTERESTING CASE.

By HENRY CARSON SMYTH, L.R.C.P. and S.I.,
Resident Surgeon, Dr. Steevens' Hospital, Dublin.

William D. was brought by the City ambulance to Dr. Steevens' Hospital, Dublin, on the afternoon of Sunday, June 8th, 1914, at five o'clock. He stated that he had been taken ill suddenly in the street with severe pain in the back, and vomiting.

The patient, a well-built man, æt. 32, and unmarried, stated that he had always enjoyed excellent health, with the exception of some slight pain in his arms and hands about three months ago, for which he had to remain away from work for two or three days.

On the day of his admission to hospital, feeling quite well after eating his dinner, he had gone for a walk, and it was during the walk that he was seized with the pain and sickness.

He described the pain as starting in his back on the right side near the lower margin of the liver, and shooting towards the opposite side, and up to the right shoulder.

On admission the patient was evidently in severe pain, his face was flushed, and the right side of his neck was œdematous, his temperature was 96.4 F., pulse 88, and respirations 24 to the minute. On examination nothing abnormal was discovered in the heart, lungs, or abdomen, and the urine did not contain either sugar or albumin.

Shortly after admission the œdema extended to the right side of the face, and an hour later to the left side of face and neck, closing both eyes. The pain was still severe, and had become constant, but did not bear any relation to respiratory movements. The pulse rate increased to 100, but the frequency of respiration was the same as before. At eight o'clock p.m. the patient was restless, had some dyspnœa, but was able to lie down on his left side. The pulse rate had increased to 110 and respirations to 28 per minute. By midnight the pulse had further increased to 130 and the respirations to 40 per minute. The patient was suffering from marked dyspnœa, and he stated that the pain was rather worse than it had been before. On examination of the chest at this time distinct surgical emphysema was found over the right side, and there was marked loss of resonance over the bases of both lungs, with loss of breath sounds. The œdema of the face had diminished, and patient was able to open both eyes. At 4 a.m. the pulse rate had fallen to 128, but the respirations remained at 40, and the dyspnœa had increased. Patient otherwise seemed easier, and stated that the pain was better. At 7.30 a.m. the patient had a violent attack of retching, and brought up a small quantity of blood-stained fluid. He then became deeply cyanosed and died almost immediately.

Post-mortem examination twelve hours after death :—

There was slight œdema of the neck and face, and the abdomen was distended. On opening the chest both pleural cavities were found to contain fluid under considerable pressure. This fluid was dark and blood-stained, and resembled that which the patient had vomited immediately before his death. Both lungs were collapsed, but did not appear to be diseased. The pleura itself and the pericardium were not inflamed, and the heart was normal. The posterior mediastinum was occupied by what appeared to be a large cyst, the walls of which were adherent to the œsophagus behind and to the posterior surfaces of the pericardium and lungs in the front. The cavity of the cyst contained fluid similar to that in the pleural cavities, and the walls were necrotic.. There was a small opening about half an inch in length from the cyst into the œsophagus, just above the diaphragm, and there was also a communication with both pleural cavities. The stomach was distended and contained fluid similar to that found in the chest. The other organs appeared healthy. Careful investigation failed to reveal the origin of the cyst, and no sign of an abscess or of pus was found.

OPERATING THEATRES.

THE CHILDREN'S HOSPITAL, GREAT ORMOND STREET.

A Case of Ectopia Vesicæ.—Mr. Edred M. Corner operated upon a girl of about 5 years of age, the subject of ectopia vesicæ. Both the urethra and the bladder were completely cleft, exposing the ureters and the trigone. The pubis was also cleft, so that the rami of the pubes were about four inches apart. The openings of the ureters were demonstrated by means of passing a catheter up each of them, and allowing the urine to flow through the catheter. Each catheter was then fastened in by a silk stitch passed through the mucous membrane of the bladder. Mr. Corner referred at some length to the very unsatisfactory results which were obtained by means of covering in the exposed bladder by flaps. He preferred to take the greater risk and transplant that bladder straight into the sigmoid flexure. It was objected to this method that the kidneys were infected from the bowel, and the patient died of uræmia. But it could be replied that such persons on whom the transplantation had been successfully performed led much more useful and enjoyable lives; some did not die young of uræmia, and it had been asserted that ureteral transplantation with the trigone prevented, or tended to prevent, the passage of organisms from the bowel to the kidney.

The operation was proceeded with. All mucous membrane round the trigone was cut away and the abdomen opened. An assistant inserted a gloved finger into the rectum and made the sigmoid present at the wound. Having freed the trigone and a short part of each ureter so that the trigone could be turned round easily, the sigmoid was opened, and an anastomosis made between the inverted trigone and the sigmoid. Mr. Corner here stated that he had split the trigone and made a small anastomosis for each ureter. It got over the difficulty of inverting the whole trigone, but was not so satisfactory. The inverted trigone tended to evert, and it was desirable to put an extra row of stitches at the upper part of the anastomisis to prevent this. When the anastomosis was completed a large hole remained in the abdominal wall. This had to be closed, and it required some ingenuity to accomplish it. In more than one case the anterior vaginal wall had been used to help fill up the gap. The difficulty was due to the cleft pubis. The operation had already been long enough, and to close the pelvis meant opening up each sacro-iliac joint as a preliminary, an operation involving much shock and quite out of the question.

Mr. Corner said that after operation these children's bowels were opened four or six times a day. They were a kind of autoenema. He intended closing the cleft pelvis by another operation at a later date. He should make no attempt now. He also added that it was quite usual for a little leaking of urine to take place at the end of a week, making a daily dressing advisable. The critical time as to the success of the operation was during the period of the leak. It was then that the anastomosis stitches might loosen and the trigone begin to evert. If this happened the amount of urine escaping increased, and finally a ureteric opening could be seen. Operations seldom failed so badly as to disclose two.

ROYAL SOUTHERN HOSPITAL, LIVERPOOL.

Calculous Pyonephrosis.—Mr. Newbolt operated upon a married woman, æt. 38, who had been admitted with a swelling in the right ilio-lumbar region, accompanied by acute pain. The history given was that eighteen months previously she had been operated upon for what was thought to be an appendix abscess. Pus was evacuated, but later on urine escaped from the wound. After a time, however, the wound healed. She remained fairly well until two months ago, when she got sharp pains across her back, and these gradually got worse until eight days ago, when they became located in the right lumbar region, shooting down into the groin. On examination, a tender swelling was found in the right ilio-lumbar region. The healed scar of an old incision was present, situated two inches above and to the inner side of the anterior superior spine of the ilium. An X-ray photograph showed no stone. The patient suffered from mitral stenosis. A small incision was made in the right loin and a trochar and cannula inserted; a large amount of pus and urine escaped, and the opening was enlarged, the finger entering a large pyo-nephrotic cavity. After a careful search a small stone was found and removed from the lower portion of the pelvis of the kidney. A drainage tube was inserted. Next day the tumour had disappeared, there was an increase in the amount of urine passed, and it contained blood. The wound gradually closed and the patient made an excellent recovery.

Nephrectomy for an Old-Standing Sinus of the Right Kidney.—Sarah B., æt. 14, was admitted suffering from a sinus which had been discharging from the right lumbar region for many months. The history given was that the child was healthy until four years previously, when she began to have attacks of pain in the right side. These were often of a severe nature, but in the intervals she seemed quite well. A year later a lump was noticed in the right side and the pain became constant and severe. An operation was performed in one of the Liverpool hospitals, and this was followed by a second and then by a third. At the last operation a stone was said to have been removed; the wound never closed. On examination there was a sinus discharging pus and urine in the right loin with some tenderness on pressure. An X-ray examination showed no stone. Under ether Mr. Newbolt passed a probe down the sinus; it entered a large cavity, so the sinus was laid freely open. The walls of the cavity were formed of a thin layer of kidney substance, and after a tedious dissection the whole of the sac was dissected out, the renal vessels were tied, and a small portion of tissue lying on the vena cava scraped. No stone was discovered. A large drainage tube was placed in the cavity, and the wound healed firmly, the child making a good recovery.

Mr. Newbolt said these were two cases of interest. The first was a case of calculous pyonephrosis, and was rather unusual, in that recovery had ensued when apparently the kidney had become greatly disorganised. Again the X-ray examination had failed to show the stone, probably because the swelling was very large and it was difficult to exert any pressure when taking the plate. In the second case the child had been an invalid for four years, and the kidney was almost totally destroyed. The cause of the condition was probably the same as in the first instance, but even though the stone had been removed the kidney did not recover as might have been expected in a child. The operation was extremely difficult, as the parts were adherent to important structures.

TRANSACTIONS OF SOCIETIES.

THE NEW LONDON DERMATOLOGICAL SOCIETY.

Meeting held Thursday, July 9th, 1914.

The President, Dr. David Walsh, in the Chair.

The President showed a case clinically resembling tertiary syphilis, but in which the Wassermann reaction was negative. The patient was a woman, æt. 59, who had been under treatment on and off for the last nine years for an eruption on the leg. She had had eight children, of whom seven are living, and has had no miscarriages. The general health is good, but she has rheumatic pains at times and suffers from diffuse headaches. On the legs there is a ringed eruption of somewhat peculiar appearance; there is a central raised verrucose area, surrounded with a whitish cicatricial area, and that again by a red margin. The verrucosity is on the right leg, but lately the eruption is generalising, and several patches have appeared on the left leg and ankle. Clinically the case suggests a tertiary syphilide, but a Wassermann test proved negative. The patient had not taken any mercury for some weeks before the blood was tested. Dr. Walsh said he had seen verrucose planus patches resembling these, and the case was probably of that nature.

Dr. D. Vinrace said that if this had been lichen hypertrophicus, he believed there would have been a flatter surface, and probably there would have been lichen planus elsewhere on the body.

The President exhibited a photograph of a patient with multiple hard chancres. The patient had some desultory treatment, but was of careless habits, and he had no less than seven hard chancres. He had not previously seen, nor found mentioned in literature, a case with so many hard sores. Six were on the penis, and one was among the pubic hair. Probably the sore on the woman was on the upper part of the labia. He (Dr. Walsh) rubbed the scab off one of the lesions with a little cotton wool, and in the serum which afterward exuded spirochætæ could be seen. They healed up marvellously under neosalvarsan, and the patient appeared to have had no fresh cutaneous lesions.

Dr. Vinrace said he assumed that most members had seen cases with two chancres at the same time. He had one case now under treatment by "606"; one chancre was on the meatus and the other on the frænum. A month ago he had a patient with three chancres concurrently.

Dr. H. C. Samuel showed (1) a case of drug eruption. The patient, a youth, had an extensive eruption over the face and neck, due to bromide, and similar lesions were scattered over the body, which was pigmented by the arsenic which the patient had been taking. The patient was an epileptic, and had been six years under treatment. On the palms he had arsenical hyperkeratosis and some lesions on the conjunctiva. This was the second time he had had a drug eruption. The previous attack was an ordinary bromide acne.

Dr. W. J. Midelton asked whether Dr. Samuel was prepared with any explanation of why these rashes formed at all. They were largely pustular, and one wondered how the pyogenic organisms gained entrance to the lesions. He had heard that by giving iodine one set up a reaction in the body, causing diapedesis of leucocytes, and so there was activity around the acne spot, for instance. One writer had spoken of the intensive administration of iodide of potassium followed by chlorine water; and another spoke of powerful tincture of iodine, four times as strong as the usual. He would like to know whether this patient had had less epilepsy since the eruption occurred. He regarded epilepsy as a toxic ailment, and in this patient an outstanding factor was tooth sepsis. He objected to giving bromide of potassium as a remedy for epilepsy. In all cases bad teeth should be extracted; he had known cases get well simply after that had been done.

Dr. C. G. Mack said that general practitioners looked upon bromide as the sheet-anchor in cases of epilepsy; and he had had cases in which the fits were kept in abeyance and the patient was more comfortable when taking bromide. But he agreed with Dr. Midelton that cases should be overhauled with the view of detecting any source of irritation, such as errors of refraction or conditions of the nose or throat. But even then there was a residue of cases in which bromide must be used. He remembered the case of a medical man who, under the impression that he had rheumatism, took iodide continuously. Finally, he called in a consultant, who found him to be suffering from acute nephritis, from which he had never recovered.

Dr. Vinrace said he understood that this bromide rash had only existed for days; and he would like to know the date when the signs of arsenic poisoning occurred, also what were the manifestations in this case. Had the exhibitor any explanation of the multiple scars on the back? He presumed there had been a uniform dosage throughout the treatment. He hoped it would not go forth from the Society that bromide was useless in epilepsy; it was the most valuable remedy for the condition which the profession possessed, particularly when combined with tincture of opium. He agreed that local conditions should be treated.

The President said he believed it was Crocker who first pointed out that rashes and pigmentation appeared on epileptics treated with bromide. In the current issue of *The Ophthalmoscope* appeared a beautiful coloured plate of a case of his own, which, because of the eye condition, came under Mr. Sydney Stephenson—a case of iodic papule. The patient had an ulcerating gummatous lesion on the cheek, and one on the eyelid, much resembling that in Dr. Samuel's case, except that one was due to bromide and the other to iodide. Clinically, it would be difficult to distinguish the lesions due to the two drugs. Iodic papules were very rare; and where they appeared the patient probably had some idiosyncrasy. Sometimes the iodide was increased in dose with the idea of getting rid of the papule. He believed many patients had been killed in that way. His own patient was syphilitic, and the iodic papule followed traumatism in the eye. It was well known that gummata did follow injuries. He asked what Dr. Samuel's idea of prognosis was in that case. The patient seemed to be in a serious condition. It seemed to be a case of having to choose between bromism and epilepsy. This patient had been taking bromide for a long period; why should the drug at one particular period produce these skin manifestations? Did the kidneys at such times rebel and refuse to excrete the drug, so that it was driven to choose another means of exit? The danger from giving bromide consisted in its continuous administration. The same was true of iodide in cases of syphilis; patients were given the drugs in hospital for six, nine, and twelve months without intermission. He contended that the administration should always be interrupted.

Dr. Samuel replied that the bromide lesions in his case were the lumpy ones, which were scattered over the trunk and face. The arsenic produced the pigmentation alternating with white areas; it had also produced hyperkeratosis of the palms. The cause of the eruption was not a question of the size of the dose; in fact, often the larger the dose the less the skin manifestation, because the kidneys were excreting it efficiently. It was considered in former days that the remedy for a bromide eruption was to double the dose. But some dermatologists gave as much as 1,000 grains of potassium iodide three times a day. It did not follow, because bromide lesions were pustular, that it was due to the invasion of staphylococci. There was much to be said in favour of administering potassium iodide by the nascent iodine method, analogous to treating lupus in mucous membranes. One did not overdose the patient by this means, and the iodine came into contact with the tissues.

(2) A CASE OF ERYSIPELATOUS ECZEMA.

The patient was a middle-aged man, who had been an engraver. The condition was probably streptococcal. This was his second attack, and he was liable to them It was not far removed from an erysipelatoid condition. He also had what appeared to be eczema of the hands, which had been swollen, but there were no bullæ. This condition was often mistaken for erysipelas.

The President remarked that the man had been exposed, as an engraver who used acid, to long-continued chronic irritation. He would like to know on what clinical grounds Dr. Samuel regarded it as streptococcal. There were several streptococcal conditions which seemed to be practically erysipelas. He had seen several cases of streptococcal conditions of the face; they were generally sharply defined, raised, chronic, and usually recurrent. He had a case of streptococcal infection round the ear. Years before, the patient had been bitten by mosquitoes. There was a sharply-defined patch on the jaw, and it spread to the meatus, and the patient came because of impaired hearing. There was moisture inside the ear, and a culture from it brought forth a coliform bacillus and streptococcus. He put her upon a massive dose of anti-streptococcus serum, and the benefit was marvellous; next morning she already had some normal skin in the affected area. The clinical points which led him to regard it as streptococcic were its chronicity, its sharp definition, and its position in the ear.

Dr. J. D. Benjafield agreed that clinically this case looked like some streptococcal infections which one had seen. One case—that of a Canadian girl—yielded to an autogenous streptococcus vaccine. He advised treating this patient with an autogenous vaccine, and if that did not prove efficacious he would try an auto-sensitised vaccine, or one sensitised by a stock polyvalent and anti-streptococcal serum.

Dr. Vinrace asked how Dr. Benjafield would account for this patient's second attack. Did he regard it as a fresh infection, or was it an erythematous condition? One saw people who were in the wind a good deal, and had their faces puffed up and eyelids swollen, and if care were not taken the state had the appearance of erysipelas. He asked whether those erythematous conditions were in a different class, or whether they were due to some streptococcal infection?

Dr. Benjafield, replying to Dr. Vinrace, said that probably, with the aid of local treatment, the patient got some immunity owing to auto-inoculation from the toxins and the dead organisms. The temporary immunity having passed off, the infection had been once more able to gain a foothold. Possibly he might have been re-infected from the same source as on the first occasion. The second question he referred to the dermatologist.

Dr. Samuel replied that in making statements one was often guided by instinct. When the patient first came, there was what appeared like a streptococcal condition; there were several cracks, where one would have expected the streptococcus to grow; and there were outlying inflamed hair follicles, such as were found in intertriginous conditions. Moreover, the swelling and the recurrent feature favoured the streptococcal view. In reply to Dr. Vinrace, he believed many of these cases went on to erythematous eczema, not erysipelas; they had no constitutional symptoms.

SPECIAL REPORTS.

THE EIGHTY SECOND ANNUAL MEETING OF THE BRITISH MEDICAL ASSOCIATION HELD AT ABERDEEN, 1914.

[By Our Special Representative.]

Sixteen years have elapsed since the British Medical Association met for its annual meeting in a centre north of the Tweed. It was in 1898 that the city of Edinburgh played the part of host, and now for the first time in the history of the Association the "Silver City by the Sea," as Aberdeen has been styled, is acting this week as host to many hundreds of members and their wives. The historical associations of Aberdeen are great and interesting in the extreme, and the Association is fortunate indeed in being able to house the whole of the Sections, as well as the Exhibition, in the spacious and magnificent Marischal College. A splendid welcome has been extended by the citizens and medical fraternity of this "grey, wintry-featured, sea-throned" city of the North to all the visitors by whom she is at present thronged.

Sir Alexander Ogston, K.C.V.O., LL.D., M.D., the newly-elected President of the Association, is well known to the medical profession as Surgeon-in-Ordinary to H.M. the King in Scotland, and Emeritus Regius Professor of Surgery in the University of Aberdeen. Born in 1844, he was educated at Aberdeen University, qualifying as M.B., C.M. in 1865, becoming M.D. in the following year. His valuable services connected with the Royal Infirmary are remembered with lasting gratitude, and he is still Consulting Surgeon thereto. In 1885 Sir Alexander (then Professor Ogston) served in the Soudan, and in 1899-1900 in the South African Campaign. His Address on Surgery, delivered at the Portsmouth meeting of the Association in 1899, on "The Medical Services of the Army and Navy"

The New President.

SIR ALEXANDER OGSTON, K.C.V.O.

created a great impression at the time, calling attention, as it did, to various shortcomings that then marred the medical efficiency of the two great Services. Such fearless criticism, an ardent desire to seek the truth, and an undaunted courage in the face of obstacles are among the characteristics of Sir Alexander Ogston, who is held in the highest possible esteem by the citizens of Aberdeen. He was appointed Surgeon-in-Ordinary by the late Queen Victoria and also by King Edward VII. In 1912 he was created K.C.V.O. The University of Glasow bestowed upon him the Hon. LL.D. in 1901, and the University of Aberdeen followed suit in 1910. Sir Alexander is a Deputy Lieutenant for the County of Aberdeen, and also Hon. Colonel (R.A.M.C.) Highland Territorial Division.

Such is a brief sketch of the distinguished surgeon who now presides over the fortunes and future of the British Medical Association for the ensuing year, and the Association may indeed be congratulated upon its choice.

General Arrangements.

It is fitting that the Association should meet in Scotland this year now that it has been decided to establish a permanent Scottish office with a whole time Scottish Medical Secretary.

The momentous decision has been arrived at, after the liveliest discussion and the expression of many divergent opinions, that the special fund for the defence of professional interests should be in the hands of a Trust Association, or other organisation, *not* a Trade Union

Before the President's Address was delivered, Sir Clifford Allbutt, K.C.B., the President Elect for the Cambridge Meeting, 1915, was introduced.

The President delivered his address last night before a crowded and distinguished audience.

At 12.30 p.m. to-day the Address in Medicine will be delivered by Dr. Archibald Edward Garrod, M.D., F.R.C.P., F.R.S., Physician to St. Bartholomew's Hospital, while, at the same hour to-morrow, Sir John Bland Sutton, Surgeon to the Middlesex Hospital, will deliver the Address in Surgery.

Religious Services.

At 9 a.m. this morning the annual service for the Association will be held in the West Parish Church of St. Nicholas (Church of Scotland). A service for Catholic members will be held simultaneously in St. Mary's Cathedral, Huntly Street, when it is hoped that the Celebrant will be the venerable and revered Dr. Chisholm, the Bishop of Aberdeen, the sermon being preached by the Rt. Rev. Mgr. Meany, the Administrator of the Cathedral. At both services collections will be made for the Royal Medical Benevolent Fund.

The Work of the Sections.

As in the previous year, the scientific work of the Association will be conducted in sixteen sections, all of which are comfortably accommodated in the stately buildings of Marischal College. Among the interesting discussions that are to take place are those on: "Headache" (Section of Medicine), to be opened by Dr. Harry Campbell; on "Death Certification" (Section of State Medicine), to be opened by Sir Victor Horsley; on "The Ætiology and Treatment of Carcinoma of the Tongue" (Section of Surgery), to be introduced by Mr. W. G. Spencer. In the section of Electro-therapeutics an X-ray cinematographic demonstration is to be given by Professor Bergonié. Certain combined discussions are sure to attract large audiences, such as that on "The Pharmacology and Therapeutics of the Animal Extracts exclusive of Thyroid Extract," to be opened by Professor Noel Paton (Physiology) and Dr. O. F. F. Grünbaum (Therapeutics); and on "The Diagnosis of Chronic Pulmonary Tuberculosis in Infancy and Childhood," in which Dr. D. B. Lees, Dr. Clive Riviere (Section of Diseases of Children), and Dr. Ironside Bruce (Section of Radiology) will take part.

The Social Functions.

The annual dinner of the Association takes place to-morrow night, when a large gathering is expected. This afternoon the Provost and Town Council of Aberdeen are giving a garden party in Duthie Park. Other garden parties are arranged for at the Deeside Hydropathic, which has a 9-hole approaching and putting course; at Parkhill House, on the Don; at Inchmarlo House on the north bank of the Dee, and at other centres noted for their beautiful scenery. A number of long and short excursions to places of interest in the neighbourhood have been arranged for.

The Ulster Cup will be competed for at the Royal Aberdeen Golf Links, Balgowrie, Bridge of Don, on Thursday, at 9 a.m. Intending competitors are requested to send in their names and addresses, along with their club handicap, to Dr. H. de M. Alexander, 29, King Street, Aberdeen. The comfort and convenience of lady visitors has been especially looked after, and altogether members and their ladies may be assured of a most pleasant and profitble visit.

The Annual Exhibition.

There is no excuse for members not visiting the annual exhibition this year, for this unique display of instruments, books, drugs, appliances and foods is housed under the same roof as the Sections. Being so conveniently situated, therefore, members will have an unrivalled opportunity of inspecting the various exhibits at their leisure. A few minutes spent in making a tour of the stalls is time well spent.

ROYAL COMMISSION ON VENEREAL DISEASES.

Sir John Collie, at the 48th meeting of the Commission gave the results of some observations he had recently made in connection with 2,176 men referred to him for medical report. These were divided into three classes—(1) 1,119 whom accident or illness had overtaken, (2) 557 apparently healthy, but required to pass medical examination before entering employment, (3) 500 of the same class as the second division, but who also submitted themselves to the Wassermann test. Of all three division 106 were found to be suffering from venereal disease. In the first two divisions, in connection with which clinical evidence was relied upon, 60, or 3.8 per cent., were found to be infected; in the third class, where the Wassermann test was applied, 46, or 9.2 per cent., were shown to have had syphilis. The 500 cases of those apparently in perfect health (as evidenced by a thorough physical examination) were taken consecutively as they presented themselves for examination, and no selection was made except that working-class people over 21 years of age only were chosen. 103 of the 500 had served in the Army or Navy, and of these 24, or 18.9 per cent., gave a positive Wassermann reaction. The percentage of positive reactions in the remainder of the 500 was only 6.

Sir John stated that the figures probably did not represent the full extent of the existence of the disease, for the men examined were of a somewhat superior artisan class. An interesting feature of the investigation was the fact that the Wassermann test showed a positive reaction in as many as 12, 16 and 19 years, and in one case as to 29 years after infection, and loug after all recollection of the infection had disappeared.

Mr. Frederick J. McCann, F.R.C.S., Surgeon to the Samaritan Free Hospital for Women, said that it was of the utmost importance that syphilis and gonorrhœa should be regarded as common female ailments, for which the same facilities for treatment should be available as for other female ailments without any special stigma being attached to them. If proper facilities for in-patient and out-patient treatment were provided the special aspects of these diseases would to a large extent disappear. Systematic instruction in the early local signs of syphilis and the signs and symptoms of gonorrhœa was much required. This instruction should be given at the special hospitals for women and in the gynæcological departments of the general hospitals. He contended that it was essential that gonorrhœa should be regarded as a serious disease in both sexes, especially in women, and that prompt and effectual treatment was required. The medical profession could do much in this respect by impressing upon patients the gravity of the disease and the necessity for early curative treatment.

Dr. Chalmers, Medical Officer of Health for Glasgow, gave supplementary evidence at the 49th meeting of the Commission with reference to the experience of the Health Committee of the Corporation of Glasgow. He stated that ophthalmia neonatorum was made compulsorily notifiable in Glasgow in 1911, and that in the beginning an attempt was made to supervise the cases at the homes. It was, however, soon apparent that there was definite need for provision being made for hospital treatment. Arrangements had accordingly been made for this treatment, and it had been necessary in some cases to provide also for the reception into hospital of the mother. Their experience had shown that a proportion of children affected with ophthalmia neonatorum also suffered from congenital syphilis, and that the resultant defects in vision were greatest when the diseases were concurrent. In the period ending December, 1913, of 463 children suffering from ophthalmia neonatorum 13.6 per cent. were found also to be syphilitic.

Dr. Chalmers was of opinion that no form of compulsory notification of venereal disease, whether for any group of persons, or of cases, would effect its object. His view was that the public required not compulsion but education, and he thought that the issue of an authoritative statement showing the danger to life in after years of syphilis contracted at an earlier period, and of the disastrous effect on children would to a considerable extent effect this.

CORRESPONDENCE.

FROM OUR SPECIAL CORRESPONDENTS ABROAD.

FRANCE.

Paris, July 25th, 1914.

Anæsthesia without Anæsthetics.

A stomatologist at Marseilles, Dr. Achard, has imagined a curious method for extracting teeth without pain. He tells the patient to breathe rapidly and deeply for one minute. After this lapse of time, the tooth can be removed without pain. The anæsthesia lasts ten seconds, a time quite sufficient for the extraction. *Se non é vero é ben trovato!* In any case the method is simple and worth a trial.

Retention of Urine.

A man, æt. 29, having had a fall from his horse six years ago, presented since the accident complete retention of urine that resisted every possible treatment—electricity, baths, massage, cauterisation, etc. When the bladder was full, the patient, who had no spontaneous micturition nor any desire, complained of violent pain in the lumbar region. Examination proved that there was no stricture, no hypertrophy of the prostate, no chronic disease of the bladder. As the urine was slightly cloudy, irrigation was tried, but with no better result. A catheter could not be left *in situ* on account of irritability provoked by its presence.

Remembering the stimulating effects of injections of sulphate of magnesia on the muscular coats of the intestine in cases of obstinate constipation, Dr. Kondinetzer decided to employ them in the present case. A cubic centimetre of a solution of sulphate of magnesia (25 per cent.) was injected hypodermically each day. After the third injection, the patient felt for the first time in five years a desire to urinate. The dose was doubled for three or four days more, when he commenced to micturate spontaneously. After the ninth day, the injections were suppressed, as the bladder had recovered its normal function. Three months later another series of injections were given, and since then the patient has not experienced any trouble.

Parkinson's Disease.

The nature of paralysis agitans is ill understood, consequently medical treatment is frequently empiric—in other words, very unsatisfactory. Certain palliatives (bromides, hyoscine) have succeeded in relieving the more troublesome phenomena, but nothing further has ever been obtained. It has been for a long time observed, however, that febrile diseases diminish and even cause to cease the palsy.

This fact led Dr. Buia to try to produce fever artificially by subcutaneous injections of nucleinate of soda as employed by Donath in general paralysis and Lepine in different mental conditions. The injections were hypodermic and intravenous, but these latter were much superior. The dose employed was 0.01 grm. of a 5 per cent. solution (physiological serum), and gradually increased to 0.02, 0.03, 0.05, and 0.10, and even 0.20 grm. A series of five injections are given, followed by a similar period of repose. A quarter of an hour after the injection, febrile reaction sets in, consisting of three phases—rigor, heat, sudation. The rigor lasts for half an hour, while the temperature rises to 104° F. In the heat stage, the skin becomes red and hot, thirst is great; the patient remains motionless, the trembling of the hands and feet seems to cease. This phase lasts from one to three hours, when the temperature returns to the normal. The sweating stage is of short duration and insignificant.

A few hours subsequently the patient experiences a manifest *bien être*, sleep is much improved. The immediate effects last several days, during which the palsy diminishes considerably and some strength is gained. The initial dose is one-fifth of a grain, gradually increased to two or even four grains. Beyond this latter dose, signs of intolerance are observed—nausea, vomiting, vertigo, headache, tachycardia, dyspepsia, prostration.

Painless Delivery.

The last meeting of the Académie de Médecine was particularly interesting by the communication of Prof. Ribemont-Dessaigne on painless confinement by the injection of a nervine sedative closely allied to morphia but without its toxicity. A large number of women were thus treated in the maternal ward of the hospital, and each one seemed consciously indifferent to the usual throes of delivery, absolute silence replacing cries and groans. The uterine contractions were in no way modified by the anæsthetic, nor was delivery retarded. As regards the child, it presented at first a kind of somnolence, but from which it was quickly aroused by holding it up by the feet and blowing into its mouth. No accident from this treatment was ever observed in the mother or the child.

GERMANY.

Berlin, July 25th, 1914.

At the Medizinische Gesellschaft Hr. Klock discussed the

Treatment of Malignant Tumours of the Eye by Mesothorium and Radium.

He said that very little had been recorded respecting such treatment. The reason for that was that metastases were feared and it had been considered safer generally to enucleate. The malignant tumours of the eye were sarcoma of the choroid which had a special tendency to metastatic spread. The disease had been found in the liver as much as from 10 to 15 years after enucleation of the eye. He first showed two cases that had not been under treatment by radiation, one was an epibulbar melanotic sarcoma, the other a sarcoma of the choroid. He would afterwards show them a series of cases that had undergone treatment by radium and mesothorium emanations. The first case was one of epibulbar melanosarcoma of the right eye. The whole outer half of the cornea was covered by a thick hardened skin that reached almost to the middle of the sclerotic. When the patient first came under treatment the disease had been in existence a year, and had been treated for that period by an ophthalmologist, chiefly by cauterisation. The vision in that eye was 5.10. The following was the course under irradiation: during the first months the sittings were for 30 minutes with 12 mg. of mesothorium. There was diminution in the photophobia but not in the size of the growth. A total of radiation was one hour and 35 minutes with radium, and 7 hours and 35 minutes with mesothorium. The pupillar region was now quite clear and the thickened skin covering had disappeared. The pigment had partly gone and the conjunctival injection was much less. A third picture showed the growth a year and a half later. The tumour had receded still further. Clearing up was quite plain, the pigment in the upper part was quite gone, whilst that in the lower part was reduced to some slight patches. The tumour had now disappeared with the exception of a couple of small oval pigment spots the size of linseeds.

The second case was one of melanosarcoma of the right ciliary body. The patient, a woman aged 57, came to the klinik on account of loss of sight which she had been conscious of for six months. The iris was pushed forward and between the lens and the iris was a brownish tumour. The result of irradiation by mesothorium for a total of 10 hours and 20 minutes was a diminution in the size of the tumour, and a considerable diminution of the internal pressure which had previously been high. The mesothorium was applied weekly for 30 minutes At present the whole of the pupillary region was quite free and the tumour was reduced to the size of half a pea.

The third case was one of epibulbar spindle-celled sarcoma in a man of 59. The diagnosis was made from an exploratory excision. For a month 10 mg. of radium were applied every third day for 5 minutes. The growth the size of a bean was seated at the left external angle of the sclerotic and reached into the region of the pupil. The tumour, notwithstanding the treatment did not diminish in size, so that enucleation had to be performed. Within a month, however, there was recurrence which in spite of intensive radium treatment still persisted. It was then subjected to treatment by mesothorium for 50 minutes together; this gradually reduced the size of the growth so that at the present time there was only a radially streaked cicatrix left. A very fine nebecula on the cornea showed the former site of the tumour.

Considering the effect of radium on eye diseases generally we had to come to the conclusion that the hopes that had been raised had to suffer disappointment. In conjunctival affections (trachoma) its effects, as regarded recurrences, had been doubtful. The great field for radium treatment in diseases of the eye lay in the treatment of tumours. Great caution had to be exercised in the treatment of deep lying tumours, whilst irradiation of growths in the anterior chamber led to favourable expectations as to results.

Hr. Paul Lazarus had had a case of rapid recurrence after enucleation of a spongy mass below the eye. In that case he had introduced below the bulb and into the orbital fissure 250 mg of mesothorium radium bromide (200 of a 1 per cent. mesothorium solution and 50 mg. of 100 per cent. radium bromide), in small tubes and allowed them to remain for 30 hours. There was no reaction. In that 30 hours the tumour necrosed and melted away. The eye itself now showed no trace of burning neither internally nor on the cornea. Unfortunately the case was then lost sight of.

He could show resistance to the rays on the part of the nerve substance and brain in another series of cases. His experience was in opposition to the notion that the action of the rays was proportional to the lecithin content of the organ, that it depended on the splitting up of lecithin into cholin and that the action of the rays was to a certain extent identical with that of cholin. But the tissues rich in lecithin were relatively resistant whilst the chromosom of the spermatozoa was the most sensitive part of the tissue.

One of the dangers of radiation of the eye was the sensitiveness of the conjunctiva, that could be got rid of however by proper covering up. A second danger lay in the resorption of the tumour mass into the surrounding parts and in the hurling of any metastases that might be present into other tissues. It had been seen that when a tumour disappeared a fresh growth came in the buccal mucous membrane, or on the glands, or the lower jaw and grew rapidly. From the first it was not the tumour alone that was to be treated, but the whole of the neighbouring parts.

AUSTRIA.

Vienna, July 25th, 1914.

Tenth Congress of the Deutscher Röntgen-Gesellschaft.—(*Concluded.*)

IV.—Physico-technical Adaptations.

Dr. F. M. Fraedel (Frankfort a.M.) made a communication on "The Improvement of the Armamentarium and Auxiliary Apparatus for Röntgenography." He pointed out the following desiderata: (1) A new interrupter, with a gaseous dielectric; (2) a new series apparatus; (3) the kino film has been improved, so that 15 pictures per second can now be taken. He believes, however, that the apparatus will never be more than an experimental instrument. (4) A new form of stative with special provision for perfect focussing; the interposition of a Nürnberg apparatus for tele-röntgenography, and a special device for orientation of the camera in taking stereoscopic pictures. (5) The disposition for the taking of instantaneous stereograms has been improved, and an apparatus prepared for the duplex figuring of the cardiac movements with the help of tubes with displaceable axis. A broad film was also used for the production of electro-cardiograms and for the display of the curve of the motions of the heart.

Dr. Holzknecht (Vienna) showed new models of Röntgen-ray apparatus (cameras, distinctors, radiometers, etc.). One was an exposure key, by which the periods of exposure were exactly tabulated. A shutter furnished a combination of distinctor and Bucky effect.

Dr. J. Rosenthal (Munich) discussed some of the questions of Röntgen-ray therapy of deep-seated organs, and pointed out the imperfection of present methods of measurements.

Dr. Eckert (Berlin) also discussed the therapy of deeply-placed organs, and demonstrated the use of suspended tubes with the help of an apparatus which enables the operator to move the tubes slowly about over the patient's body. This arrangement gave specially favourable conditions for deep-seated therapy.

Dr. Braun (Solingen) discussed "Experiments with a Shutter for screening off the secondary rays in Röntgen-ray illumination and photographing (Bucky effect)." He had used the Bucky filter in taking photographs and in illumination with the Röntgen-rays, and estimated its value highly. He found that the thicker the object the better it worked; it was then itself less prominently perspicuous.

Dr. Frick (Berlin) praised the Bucky filter, but pointed out that we must take account of the luminous quadrangles which are often found in a shadow of the stomach; also that dark fields are sometimes met with.

Dr. Bucky (Berlin) explained those phenomena. The bright spaces owe their origin to the metallic radiation, but can be minimised by using a screen of lead overlaid with copper.

Dr. Braun (Solingen) pointed out that the luminous areas were injurious only in taking photographs, not in the transmission of luminosity.

Dr. B. Walter (Hamburg) discussed the graduated values of gum materials for screens. He furnished a formula for use in determining specific luminosities. The most valuable material in this connection is tin, so that a coat of mail of this metal may come into use. He also discussed the relative values of radium and mesothorium, and demonstrated with the help of his formula that a mesothorium preparation represented two-thirds the cost of a radium one of the same strength.

Dr. Bucky (Berlin) then demonstrated the use of his "adaptometer," an instrument for measuring the progress of adaptation of the human eye to darkness. This consists of a lamp of which the intensity of light can be graduated, placed behind a green shade.

Dr. Grossmann (Charlottenburg) discussed critically the present method of dosimetry. In measuring the effects of surface doses, three principal conditions must be realised: the test-measure dose must be proportional to the surface dose; it must be transformed by similar steps into measurable energy; and the change which takes place in the test-bodies must be an unquestionable measure of that energy. With those facts in view he regarded the ionoquantimeter which he exhibited as an absolutely reliable instrument.

Drs. Immelmann and Schütze (Berlin) discussed "Practical Experiments with the Fürstenausche Intensimeter." This instrument has been constructed by utilising the action of the Röntgen-rays on selenium, and is an instrument of dosage—both for radiation and for diagnosis. The instrument works satisfactorily, and can be rapidly adjusted.

Other dosimeters were exhibited by Dr. Levy-Dorn (Berlin) and by Dr. Hammer (Freiburg-i.-Br.).

V.—Diagnostic Applications (Skeleton, Various Regions and Growths).

Dr. Franz Wohlauer (Charlottenburg) exhibited a large number of diapositives showing the changes demonstrable in tabetic osteoarthropathies with the help of the Röntgen-rays. It has repeatedly happened in his personal experience that he was able to make a diagnosis of tabes in its initial stages from the revelations made by the application of the rays. In one case he was able to observe the condition of combined lues and tabes; inasmuch as a patient displayed a tabetic arthropathy of the knee-joint, while the tibia displayed the typical picture of syphilitic bone disease.

Dr. Grashey exhibited radiograms in which failure of diagnosis had taken place, in some of which it might have been comparatively easily avoided. In a case of sarcoma of the neck of the femur, and in another of sarcoma of the vertebral column, a diagnosis of chronic inflammatory processes had been made. In another case, a diagnosis of sarcoma of the femur had been made, which on operation appeared to the naked eye to be a sarcoma, although it was adjudged osteochondroma by the microscopic diagnosis. For the first time, after operation on a recurrent growth, the pathologist formulated the diagnosis of chondroblastic sarcoma. A specimen which displayed a portion of the epiphysary line of the olecranon has been pronounced to be one of fracture.

Dr. Graessner demonstrated a number of varieties of spina bifida occulta of the lumbar region in the living subject. The condition is one of frequent occurrence, and attains a practical interest in the second year of life, when lesions of sensation, deformities of the feet, and ulcers of the skin of the latter come to develop. In most of those cases the true diagnosis can be made only with the help of the Röntgen-rays. Early recognition is of the greatest importance, as improvement can be hoped for only after section of the cicatricial bands and detachment of the adhesions within the spinal canal which have been pressing on nerve trunks. Spina bifida occulta could be found in 60 per cent. to 70 per cent. of cases of enuresis in children, and of vaginal and uterine prolapse in women.

Dr. Nemenow (St. Petersburg) demonstrated a series of diapositives. Among them were pictures of needles in the abdominal cavity—in a case in which 193 needles were removed from the stomach by operation, knitting-needles in the bladder, pelvis of kidney with double ureter, various abnormalities of the ureters, gall-stones in position, tabetic arthropathy of elbow-joint, ulcus ventriculi et duodeni, pneumatocele cranii.

Dr. Rosenblatt (Odessa) demonstrated a series of rare Röntgen-ray pictures. (1) A sarcoma of the ulna, in which the diseased bone was resected and replaced by a piece of fibula. After eight months a recurrent sarcoma appeared in the transplanted head of fibula. The question arose of local extension of the traces left in the seat of the original disease or of metastatic affection of the head of the fibula before transplantation. (2) Congenital diverticulum of œsophagus. (3) Acquired œsophageal diverticula. (4) Blind ending of descending colon and canalicular junction of flexura coli sinistra with ampulla recti.

Dr. Sabat (Lemburg) also showed rare specimens of Röntgen-ray pictures: craniostenosis, chondrocystoma, hydro-pyopneumo-pericardium, arterio-sclerosis of aortic arch, hæmatoma of thorax, colitis ulcerosa tuberculosa, calcified tuberculous kidneys, subphrenic abscess with formation of gas, large abdominal cysts which appeared like enormously dilated gall-bladders.

FROM OUR SPECIAL CORRESPONDENTS AT HOME.

SCOTLAND.

The Public Health Congress.

The concluding meeting of this Congress in Edinburgh was held on Monday, the 20th. The joint session of the State Medicine and Industrial Hygiene Sections was presided over by Dr. Leslie Mackenzie, and was occupied chiefly by papers on conditions affecting the welfare of children. Dr. Brown, Medical Officer to the Govan School Board, discussing the nutrition of the school child, emphasised the importance of ante-natal conditions in relation to the health of the mother as influencing the nutrition of the offspring He also showed that when a family income fell below 20s. per week, a sufficient diet could not be obtained. Dr. Trotter, M.O.H. for Paisley, read a paper on "Co-ordination in Administrative Methods in Dealing with Infection and Infantile Mortality." His argument was that more discriminating treatment was required in connection with infectious diseases, and that it was not enough to differentiate them into the compulsorily notifiable and the non-notifiable. The control of tuberculosis in Lanarkshire was discussed by Dr. Wilson, M.O.H. for the county. The Insurance Act had enabled the authorities to tackle the problem in a way undreamt of three years ago, and now they had sanatoria and work colonies, hospitals, dispensaries, and special provision for the treatment of surgical tuberculosis, including an X-ray equipment. Many non-pulmonary cases were now treated, but up to the present about 90 per cent. of the phthisis cases notified were beyond hope of permanent improvement.

After a paper by Dr. Macgregor, Glasgow, on the city incidence of tuberculosis, statistical in nature, Dr. Nathan Raw, of Liverpool, discussed the infection of children by tuberculosis, in which he reiterated the view he has already expressed elsewhere as to the relation of infection from bovine and human sources. He urged the sanitary aspect of the question, and the importance of preventing the infection of children by a tuberculous mother, which was most likely to arise in poor-class homes. A tribute was paid to the importance of the Edinburgh work on milk infection; he was convinced that the removal of udder tuberculosis from herds was simply a question of time.

Dr. McWalter, Dublin, questioned the efficacy of notification, on the ground that it was a fallacy to look upon the tubercle bacillus as the efficient cause of tuberculosis. He regarded it mainly as a question of housing. After the discussion on the papers on tuberculosis a number of interesting communications were read, among them being Dr. Love's paper on "The Vaccine Treatment of the Complications of Scarlet Fever," Dr. Dittmar's on "Communal Cleanliness," and Dr. Paul Ritchie's on "Arthritis Deformans in Relation to Industrial Conditions." It would seem that coal miners are more affected by the disease than any other class.

The Sections of Epidemiology and Child Welfare met together under the chairmanship of Professor Hunter Stewart. The principal discussion centred round Dr. Ker's paper on

Isolation and Quarantine Periods for Infectious Diseases.

The substance of the paper was read at a medical meeting in Edinburgh some months ago, and has already appeared in The Medical Press and Circular. On one of the chief questions—the infectivity of desquamation in scarlet fever—Dr. Ker was somewhat sceptical, and favoured a shortening of the period of detention. Measles he regarded as non-infectious as soon as the rash has faded, and quite possibly even when the catarrhal stage is over. For the sake of the patients themselves prolonged stay in hospital in cases of whooping cough was very beneficial, but it was very doubtful whether the actual infection lasted after the development of the whoop. In the subsequent discussion there was general agreement with the views expressed by Dr. Ker. Owing to the small attendance at the meeting of the Pathological Section the papers were taken as read.

The Congress was formally closed by a meeting in the Asher Hall in the evening, when Dr. Otto Neustalter, Dresden, delivered an address on "The History of Public Hygiene." It was announced that next year the Congress of the Royal Institute of Public Health would be held in Brussels.

Insurance Act in Scotland.

The further points of interest in the annual report by the Scottish Commissioners, additional to those referred to a fortnight ago, concern, among other matters, the drug fund. The chemists thought that on the tariff of charges upon which they were allowed to base their accounts there would be some of the drug fund of 1s. 6d. per person left over in every area. The Commissioners did not agree with this, and suggested that any proposal for increasing the tariff rates should be postponed until actual experience had been obtained. It has been found that the average cost for drugs varies greatly—from 7½d. and 8½d. in Argyll and Kilmarnock, to 1s. 10¾d. in Zetland and 2s. 1¾d. in Aberdeen. The floating 6d. has therefore had to be drawn upon in many areas. As regards sanatorium benefit, this has been very thoroughly taken up by Insurance Committees, with the co-operation of Medical Officers of Health and the Local Government Board. Authorities have been able to co-operate with one another in providing sanatoria, etc., as was never in the past possible. The part of the Insurance Committees is not to provide institutions, but to utilise institutions provided by other authorities. Scotland's share of the amount available for sanatoria under the Finance Act of 1911 amounted to nearly £160,000. In the course of the year the L.G.B. approved comprehensive schemes by five counties and twelve burghs, and the proposals of twelve counties and six burghs are still under consideration. The seventeen approved schemes cover 1½ million people, and the eighteen proposals being considered another two and a half millions, so that the total schemes under the notice of the L.G.B. represent over 80 per cent. of the population. The number of available beds has increased from 883 in July, 1912, to 1,678 in January, 1914. For these eighteen months 4,682 applications for sanatorium benefit were received, and 3,820 persons got sanatorium benefit. The total cost was nearly £140,000. The Commissioners lay stress on the field open to committees in the way of providing health lectures, etc.

Proposal to Erect a Chair of Tuberculosis in Edinburgh.

At the last meeting of the University Court, Edinburgh, a letter was read from Sir Robert Christison, Chairman of the Victoria Hospital and Dispensary, in reference to the endowment of a Chair of Tuberculosis in Edinburgh. The proposal was favourably received by the Court.

Alleged Cancer Street in Ayr.

The annual report of the Imperial Cancer Research Fund refers to an address which Sir Thomas Oliver delivered this year. He said that his attention had been drawn to a short street in a small town in which, between the years 1893 and 1908 nineteen persons and one dog had died of cancer. In some of the houses two or three cases had occurred. Since in nearly all the patients there was no hereditary history of the disease, the large number of deaths among successive occupants suggested, he said, that the matter was more than a co-incidence. Commenting on "cancer houses," Sir Thomas Oliver wrote:—"It is not an agreeable subject, and many medical men are of opinion that cancer germs lurk in houses." The street above alluded to is in the town of Ayr, Sir Thomas's native place. In consequence of his statements, an investigation was made on the spot under the auspices of the Imperial Cancer Research Fund, every facility being given by the local public health authorities. The street referred to is broad and contains the best type of residential detached and semi-detached villas, with gardens front and back. The householders, the report states, being mostly retired business men or belonging to one of the professions, the average age is, therefore, higher than in other parts of the town. The age of the youngest verified case was 55, and four alleged cases were aged 80 or above, although only one could be verified. There was no positive evidence of infection of any kind whatever. "So far as the investigations into 'cancer houses' and 'cancer areas' have proceeded," concludes the report, "they accord with what has already been established by experiments on animals. 'Cancer houses' are as much a myth as are 'cancer cages.'"

Medical Conditions in Mull.

The Highland and Islands Medical Service Board has been visiting Tobermory. The Board was represented by Dr. Norman Walker, Dr. J. L. Robertson, Senior Chief Inspector of Schools, and Mr. L. McQuibben, Secretary. Among others present was Dr. MacDonald (Salen). The Chairman, Dr. Walker, said they meant to insist upon annihilating the difficulties of distance as regarded the out-of-the-way districts. During a discussion on the parish of Torosay, it was mentioned that a patient in Lochbuie was 27 miles from the doctor in Salen. In reference to Dervaig, in Kilninian parish, the United Free Church minister asked if any provision was to be made, now that Dr. MacLean had retired. Should the doctor happen to be at Lochbuie, a Gometra man would have to travel between 80 and 90 miles to bring the doctor to that island. The general consensus of opinion at the Conference was that one large hospital should be arranged for at Tobermory to serve for Mull, Ardnamurchan, Coll, and Tiree.

LETTERS TO THE EDITOR.

[We do not hold ourselves responsible for the opinions expressed by our Correspondents.]

FORCIBLE FEEDING.

To the Editor of The Medical Press and Circular.

Sir,—I am afraid that Mr. McKenna's fear of the truth being made public has somewhat misled you on the subject of the medical deputation to that Minister. His excuse for not receiving us we immediately showed to be groundless, but he persisted in his refusal, and I think that your notes might have accorded to the deputation a little more just appreciation than that "the matter fell through." To my mind it was improper on the part of a Minister of a democratic Government to shrink from publicity. The reason is obvious—namely, that the prison practices are not medical treatment, but are employed, as Mr. McKenna admitted in the House of Commons, to produce "effect" on prisoners, who will then in the majority of cases yield to the "stress" they are subjected to. If you consult Hansard you will recognise that these words signify nothing less than that the prisoners are tortured. It is true that the medical officers in the prisons are sworn as constables, and therefore legally can be employed as torturers or executioners; but in our opinion the imposition of these reprehensible instructions and their obedience to them is contrary to all the ethical principles of the medical profession. All these points we were ready to substantiate by facts, and, as I have said before, it is quite obvious why Mr. McKenna declined to defend his administration in public. As regards the ridiculous question that he put in a letter to us—namely, What is the alternative? there is only one answer, as you say—namely, full female enfranchisement. The existence of militancy has nothing whatever to do with the granting of such enfranchisement.

I am, Sir, yours truly,
Victor Horsley.

25 Cavendish Square, W.
July 22nd, 1914.

To the Editor of The Medical Press and Circular.

Sir,—There can be no doubt, I think, that the ideas of a handful of medical men who are opposed to so-called "forcible feeding" are altogether untenable and *ultra vires*. What is called militant suffragism is nothing more nor less than another name for sex warfare, and the aim of these militant women is obviously to inflict the maximum amount of public injury with the minimum amount of inconvenience to themselves, and the latter is admirably achieved so long as they are allowed to commit crime *ad libitum* and escape prison through "an attempt to commit suicide" by starvation (a crime *per se*), in many cases repeating the same or other crimes whilst out on licence. It is certainly unwarrantable that the lives and property of millions should be at the mercy of a few desperadoes, some of whom are demented, and whose ranks can be readily repleted as they fall out one by one under the present easy-going conditions, and who hope by a system analogous to guerilla warfare to exhaust public patience and ultimately achieve their end through violence and public abuse.

It is the duty, therefore, of the Government, so far from discontinuing forcible feeding, to resort to it as a preliminary in every case of "attempted suicide" or hunger strike, otherwise they manifestly admit to prison for one offence and release them under "temporary discharge" for another.

I am, Sir, yours truly,
Clement H. Sers, M.R.C.S.

5, Chanctonbury Road, Hove.
July 23rd, 1914.

THE DECAY OF FRANCE.

To the Editor of The Medical Press and Circular.

Sir,—The letters on the decay of France which have appeared in recent issues of your publication have been full of interest to every thoughtful individual. As the writer of them remarks, "the population question is the fundamental question." Your correspondent, however, takes a limited view of the matter; as I read him, he is imbued with the idea of imperial domain both for France and England. He considers it necessary to make the mother countries nurseries for pioneers, emigrants and settlers, each of whom will carry with him the flag of his country to maintain its supremacy. Is the imperial idea a correct one? More important than the welfare of France or of England is the well-being of the world as a whole. Now, the population of the world bears a more or less constant ratio to the amount of available food in the world. It is not a question of money; it is the fundamental question of meat and drink. There would be no surplus population if there were enough food for everyone. My opinion is that there is not enough food for everyone. How far this is due to economic short-sightedness and imperial wastefulness is a question still to be discussed, but the chief factor at present in its causation is the over-population of the world. The available amount of food in the world is sufficient for a number of people. Express this number as x. The total population is then expressed as x plus the surplus for whom there is not a sufficiency. When millions in India were starving to death there was money enough wherewith to buy food, but there was not enough food to be bought. It might be argued that our surplus population could be employed to make the desert arable and the jungles fruitful, but that would mean a total abandonment of the ways of statesmen. The nations in their blindness act as drags on the wagons of the pioneer and rob him of his just reward. Besides, as your correspondent points out, the surplus population is not fit for such work, it has to be coddled in workhouses, gaols and lunatic asylums. To the universal it matters not whether France decay or England wither. Patriotism is un-Christian, for it implies the waxing of one power at the expense of another's waning. As long as there is not enough land under cultivation to supply the needs of men, every step by men and nations to decrease the population is expedient and excusable. Better, however, than this would be the acquirement of sense by the collective intelligence in order that money should be spent on what is bread, or potential bread, and not on that which profiteth not.

I am, Sir, yours truly,
Neo-Malthusian.

REVIEWS OF BOOKS.

PRACTICAL HORMONE THERAPY. (*a*)

There can be no question that the therapeutical use of organic extracts and internal secretions is a very fascinating subject, and the brilliant results achieved with one or two substances are such as to justify the author insisting on the "positively enormous" prospects held out by this line of research. Still, we must not blink the fact that at present our knowledge of the subject does not go very far, and that further progress is conditional on difficult, painstaking observation. Writers on the subject will therefore do well to take the diplomatic maxim to heart, "Surtout point de zèle." We shall not advance our knowledge by arguments based on statements that this or that organ "controls possibly in some way" some other organ. It would be safer to wait until such has been shown to be the case. Nor can we set much store on results of organotherapy in such vague disorders as ovarian dysmenorrhœa, neuralgia, or hyperæmia.

We readily concede that the author has given us an exhaustive and voluminous treatise on organotherapy; he tells us all that is known—and a good deal that cannot by any stretch of imagination be said to be known. His work will certainly stimulate inquiry and

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(*a*) "Practical Hormone Therapy." By Henry R. Harrower, M.D., late Professor of Clinical Diagnosis, Loyola University, Chicago. London: Bailliere, Tindall, and Cox. 1914. Price 15s. net.

will prompt many a reader to ascertain for himself what measure of usefulness attends the employment of the less well known of these organic extracts. We cordially agree with the author's remark that "some of the statements regarding the therapeutical applications of endocrinous preparations are strange, to say the least," for whoever would imagine the use of placental extract as a remedy for alopecia or of adrenal extract as a cure for sea-sickness?

The fundamental principle of hormone therapeutics—viz., to supply to the body a particular hormone or combination of hormones which, through disease, has been diminished or lost, is certainly a most reasonable one, but unfortunately these hormones are, for the most part, imponderable, elusive substances, the existence whereof is inferred rather than demonstrated. In any case, it is to be hoped that preparations of these hypothetical substances will not be named according to their fancied action. We already have "motilin," "vasodilatin," and a few others which must horrify both the physiologist and the philologist.

What, then, are the substances the use of which in therapeutics may be said to have a scientific basis? Well, of course, first and foremost comes thyroid extract, then adrenaline, followed, at an interval, by pituitrin, possibly thymin, ovarian extract, luteal extract or lutein, and—well, this is about all, because the action of the last three is by no means established, that is to say, a definite, constant, physiological effect. Take the placental hormone, for instance; one man says it increases the flow of milk, the next man contradicts this, but finds that it causes uterine contraction, while a third brings it forward as a remedy for alopecia.

The task of assigning a particular therapeutical function to the individual gland is often so great that organo-therapeutists fall back on pluriglandular extracts, a sort of polyvalent stew, "eye of newt and toe of frog," the use of which, observes the author, "is by no means as unscientific as some might think . . . since some of the failures following the use of a single animal extract may be obviated by combining it with one or more synergistic extracts."

There really seems reason to look forward to a brilliant future for organotherapy, and works like this one which synoptise the results obtained by countless scientific labourers are of immense service. But do not let us get into a state of hysterical excitement over mere possibilities, let us abstain from such language as that in which a distinguished English physician recently referred to the subject. "The internal secretory glands already unfold before the astonished view of the seeing eye a land of promise beside which the vast territories conquered by Lister and Pasteur are destined to pale into honourable insignificance. The ductless glands and their hormones come to us as peaceful conquerors who brook no denial. They lighten our darkness and show us miracles. In studying them and endeavouring to unravel their intricate and esoteric mysteries one seems ever and anon to be on the trail of the Great Secret and in danger of losing one's mental perspective."

LITERARY NOTES.

Those of our readers who were fortunate enough to secure a set of Mr. Hanslip Fletcher's realistic sketches of Guy's Hospital, published a short while ago, will be glad to learn that the same talented artist has just executed a fine series of eight drawings of St. Bartholomew's Hospital. The plates, which measure 17 in. by 13 in., including margin, are replicas of the beautiful wash drawings made by Mr. Fletcher only this spring. The view of the Priory Church interior is a noble gravure in colour; the others are in monochrome. The subscription price for artist's signed proofs, printed on Japanese paper, with plate paper mounts, is two guineas the set. Bart.'s men in all parts of the world will welcome this opportunity of possessing these delicately finished and wholly representative drawings of their *alma mater*. The plates are issued by Messrs. W. H. Beynon and Co., Fine Art Publishers, St. Alban's Lodge, Cheltenham.

MEDICAL NEWS & PASS LISTS.

Medical Sickness and Accident Society.

At the usual monthly meeting of the Executive Committee of the above Society, the half-yearly balance-sheet submitted showed that the Society's reserves continue to expand. The fund amounts to over £260,000, and the income of the Society is well over £35,000 per annum, and shows a steady rise every year. The grateful letters from members who attain the age of 65 and receive their bonus are highly satisfactory to those under whose careful management the Society has prospered sufficiently to enable this bonus to be paid, and the amount actually paid increases every year, and reached £1,500 in 1913. This fact proves that many attain 65 years, and that insured medical men are, taken as a whole, good lives.

The claim account presented was slightly lower than that of last year, and was under the expectation provided for by the tables.

Death under Ether.

Mr. W. Schroder held an inquest on the 17th inst. at St. Pancras concerning the death of Anne Grabot, aged 54 years, who died at the New Hospital for Women, Euston Road, under an operation.

The evidence showed that the deceased, the wife of a cabinet maker, had been ailing for the last few years with pains in the back and internally. The previous week she went to the New Hospital for Women, Euston Road, as an out-patient, and there, after examination, was told that she was suffering from an internal growth, and that it was advisable she should become an in-patient and undergo an operation for the removal of the growth, to which she consented. On Tuesday afternoon she was prepared for the operation, which was for the removal of cancer. An anæsthetic was administered, and when the operation was nearly completed it was noticed that a sudden change had come over her. Restoratives were used, and the operation quickly completed. Deceased had a second relapse, and died a few minutes later. On a *post-mortem* examination being made by Miss Goldby, one of the House Surgeons, it was found that there was disease of the heart and liver. It was found that the cancer was of old standing. Death was due to syncope owing to fatty degeneration of the heart whilst under the influence of the anæsthetic.

Dr. Miss Nora Payne stated that she administered ether, which was taken very well indeed. The operation was a long one, occupying over two hours. Suddenly she noticed there was a change in her condition, on which every endeavour was made to restore her, but she never regained consciousness and died, death being due to fatty degeneration of the heart, accelerated by the anæsthetic. Witness had given anæsthetics in over 3,000 cases successfully.

The jury returned a verdict of "Death by misadventure."

Landlord's Responsibility for a Defective Drain

At the West London County Court, on the 21st inst., Judge Selfe delivered a considered judgment in a case in which a landlord was sued on account of an illness said to have been caused by a defective drain.

In December last Mr. Matthews, of Hurlingham, let on lease to a Mr. Worthy the house at 15 Coniger Road, Parson's Green, at £36 per annum. Shortly after entering into occupation Mrs. Worthy complained of illness, which proved to be enteric fever. An examination of the house drains disclosed a crack in the main sewer, from which sewage had saturated the surrounding soil, while gas was also given off. The plaintiff claimed £100 damages.

His Honour found on the evidence that defendant had let the house without having the sanitary arrangements examined. Since the medical evidence agreed that enteric fever is caused by a bacillus entering the system, and would not be caused by merely inhaling sewage gas, his Honour did not feel justified in finding that the enteric fever was directly caused by the defects in the sewage arrangements. His Honour found, however, that a person whose general health was lowered by insanitary conditions, as Mrs. Worthy's was in this case, was more liable to enteric fever than a person in normal health. If the enteric fever had not supervened Mrs. Worthy would have required some medical treatment, and he did not think the defendant should escape the consequences of his breach of the Houses and Town Planning Act. He assessed the damages at £15 with costs. If, however, it was decided on appeal that the fever was the direct result of insanitary conditions, he assessed the damages at £75, with costs on the highest scale.

The Unallocated Funds.

A meeting of the Insurance Committee for the County of London was held last week at Spring Gardens. Mr. Fred Coysh was elected Chairman of the Committee for the ensuing year, and Mr. J. Howarth was elected Vice-Chairman.

Replying to a question, Mr. Frank Briant, London County Council, said that a letter had been received from a solicitor stating that he had been instructed by Dr. H. Bazett to bring an action against the Committee to make it disgorge moneys that had accumulated during 1913, through insured persons not selecting a doctor.

Mr. C. C. Greenwood stated that since May the number of deposit contributors in the county area had decreased by 4,429. If that rate continued, the question of deposit contributors would settle itself in a short time. In regard to the distribution of moneys in the panel fund for last year, the Medical Benefit Sub-Committee recommended that as the Insurance Committee was unable to agree as to the method of distribution, the Insurance Commissioners be requested to distribute such moneys among the practitioners on the panel.

Mr. Handel Booth. M.P.. thought the proposal was an easy and simple way of ending the controversy. He made an appeal to members to dispose of it, in order that they might all "pull together" for the benefit of the insured persons

The sub-committee's recommendation was carried by 38 votes to 19.

Unstamped Medical Preparations.

At Marylebone last week, Mr. Biron heard a summons at the instance of the Customs and Excise against Samuel Simpson, of Brondesbury, trading as James Alfred Sims, at Paddington, for exposing for sale certain preparations used as medicines without Revenue stamps attached and without having a licence.

The defence was that the question was whether the defendant or someone else was liable for the duty. The prosecution must show that the defendant was the owner, proprietor, and original vendor of the articles before they could make him liable for the duty. The defendant bought wholesale and had no prescriptive right in the medicines at all.

Mr. Biron ordered the defendant to pay fines amounting to £50. with £1 costs.

Mr. Paul Taylor heard a similar case in which Isaac Rose, trading as I. Reid and Co., of Edgware Road, was summoned. The defence was the same as in the previous case. There were six summonses, and Mr. Paul Taylor fined the defendant £10 on each summons, £60 in all, with £2 2s. costs.

University of London.

The following have passed the M.D. examination for internal and external students:—

Branch I.: Medicine.—J. Ll. Davies, B.S. (University medal), Univ. Coll. Hosp.; E. P. Evans, B.S., Univ. Coll. Cardiff and London Hosp.; C. J. Marshall, B.S., Charing Cross Hosp.; E. S. Miller, B.S., Univ. of Liverpool; Margaret G. Thackrah, B.A.. B.S., London (R.F.H.) School of Medicine for Women.

Branch III.: Mental Diseases and Psychology.—C. S. Read, Univ. Coll. Hosp.

Branch IV.—Midwifery and Diseases of Women.—Maud F. Forrester-Brown, London (R.F.H.) School of Medicine for Women; E. M. Guest, B.S., London (R.F.H.) School of Medicine for Women; S. E. Hill, London (R.F.H.) School of Medicine for Women; F. J. Humphrys, B.S., St. Thomas's Hosp.; R. Montgomery, B.S., Univ. of Leeds and Guy's Hosp.; A. W. Owen, B.S., St. Mary's Hosp.; Mary C. Scott, B.S., London (R.F.H.) School of Medicine for Women.

Branch V.: State Medicine.—H. L. Hopkins, Guy's Hosp.

Branch VI.: Tropical Medicine.—M. F. Reaney, London Hosp. and London School of Trop. Med.

The following have passed the M.S. examination for internal and external students:—

Branch I.: Surgery.—H. Gardiner, Guy's Hosp.; V. Glendining, Guy's Hosp.; N. C. Lake, M.D., B.Sc., Charing Cross Hosp.; P. H. Mitchiner, St. Thomas's Hosp.; A. H. Todd, B.Sc., Guy's Hosp.; J. B. F. Wilson, Univ. of Leeds.

Loodon School of Tropical Medicine.

The following candidates have passed the examinations during the session May—July, 1914:—

The following passed with distinction.—A. C. Munro (Capt. I.M.S.), M.B.Glasg. (awarded the Duncan and Lalcaca medals), C. Bonne, M.B.Amsterdam, J. M. Stenhouse, M.B., B.C.Cantab., J. S. Webster, M.B., Ch.B.Victoria.

Ordinary Pass.—G. W. Maconachie (Capt. I.M.S.), M.B.Aber., W. M. Shepherd (Colonial Service), M.B., Ch.B.Edin., W. M. Strong, M.B., B.C.Cantab., M.R.C.S., L.R.C.P., J. C. Watt (Colonial Service), M.B.. Ch.B.Glasg., B. H. Wedd, M.D.Lond., D.P.H., H. G. Waters, M.R.C.S., L.R.C.P., Miss O. N. Walker, M.B., B.S.Durh., J. Baeza (Colonial Service), M.B., Ch.B.Edin., A. C. Anderson (Capt. I.M.S.), M.R.C.S., L.R.C.P., N. S. Deane (Colonial Service), L.R.C.P. and S.I., L. S. Holmes, State Diploma, Bengal, A. G. McPhedran, M.B., B.H.Toronto, J. V. Shirgaokar, M.R.C.S., L.R.C.P., L.M. and S.. C. Sivasithamparam (Colonial Service), L.R.C.P. and S. Edin., L.F.P. and S.Glasg., R. K. Mitter (Lt. Col. I.M.S.), L.R.C.P. and S.Edin., M.B.Calcutta, C. H. Barlow, M.D.Chicago, R. B. Jackson, M.B.Dublin, I. A. Rahman, M.R.C.S., L.R.C.P., W. J. Dixon, M.R.C.S., L.R.C.P., M.B.Madras, C. K. Attlee, M.R.C.S., L.R.C.P., (Colonial Service), S. Elias, Cairo Medical School, K. B. Dastur, L.M.S.Bombay, D.P.H. Dub., A. G. Fletcher, M.D.Chicago.

Royal College of Surgeons of Edinburgh—Fellowships.

At a meeting of the College held last week the following gentlemen, having passed the requisite examinations on March 27th, 1914, were admitted Fellows (F.R.C.S.Edin.):—Robert B. Blair, M.B., Ch.B.Edin., Joseph J. Brown, M.B., B.S.Durh., Arthur B. Cardew, M.R.C.S.Engl., L.R.C.P.Lond., M.B., B.S.Lond., Harry A. Gibson, M.D., C.M. Queen's Univ., Kingston, Dwarka P. Goil, M.B., Ch.B.Edin., Capt. I.M.S., William W. Creer, M.D. Edin., Allan G. Hamilton, M.D.Edin., Leonard Hirsch, M.R.C.S.Eng., L.R.C.P.Lond., Capt. I.M.S., John Honeyford, M.D.Edin., Ernest H. Howard, M.B., Ch.B.New Zeal., M.R.C.S.Eng., L.R.C.P.Lond., Gerald L. Little, M.B., Ch.B.Edin., Capt. I.M.S., James McClellan, M.D.Liverpool, John D. McEwen, M.B., Ch.B.Edin., Ernest Muir, M.D.Edin., James B. Wilkie, M.B., Ch.B.Edin. The following gentlemen obtained the single licence of the College (L.R.C.S. Edin.):—Thomas J. Williams, M.D., and Vinayak L. Sathe, L.M and S.Bombay.

Royal College of Surgeons in Ireland.

The following candidates have passed the undermentioned examinations, July, 1914:—

Primary Fellowship Examination.—Moses Briscoe, Robert A. Keane, John A. C. Kidd, Robert C. B. Ramsay.

Final Fellowship Examination.—Andrew R. D. Carbery, Frank M. Fonseca, Lætitia L. Menezes, John O'Leary, Balwant Rai, Jerome Suares, Hassan Suhrawardy.

Final Dental Examination.—Walter G. Keys, Arthur C. Wiley.

SUMMARY OF RECENT MEDICAL LITERATURE ENGLISH AND FOREIGN.

Specially compiled for THE MEDICAL PRESS AND CIRCULAR.

Abdominal Cæsarean Section in Eclampsia.—Peterson (*Amer. Jl. Obs.*, lxix., 4), from facts gathered during the past three years, comes to the conclusions that the operative results during the five years from 1908 to 1913 have so improved as to force a change in opinion as to the right of Cæsarean section amongst other obstetric operations in the treatment of ante-partum eclampsia. The statistics show that the earlier the operation is done after onset of convulsions the lower the mortality, both maternal and fœtal. It is not claimed that every woman developing eclampsia should be operated upon, but that the operation should not be condemned without a hearing, because the results obtained are improving so rapidly; it must be considered seriously, although other methods from a statistical standpoint are superior. The operation is contra-indicated when attempts at delivery have been made from below or many vaginal examinations made. The operation will very rarely be indicated before the eighth month and is not advised for the unskilled practitioner. When the operation is decided upon, it should be done as early as possible. F.

The Serum Diagnosis of Pregnancy.—Jellinghaus (*Amer. Jl. Obs.*, lxix., 4), in a long paper concluding with a detailed account of the *technique* of the test, concludes that Abderhalden's defensive ferment theory is correct, but that the dialysation method has not proved infallible; the results obtained have lately always been correct in the pregnant cases, but not so in the non-pregnant ones. Since uniform results have not been obtained the test cannot be recommended for diagnostic purposes. Many of those who use the test for this purpose, when they obtain a positive result in a case which proves to be not pregnant, blame it upon some error in *technique* or impure placental albumen. Since the error is not detected until the further course of the case made it evident, the method must be looked upon as useless until the *technique* is improved so that errors can be positively avoided. Much of the literature condemning the dialysation method is not convincing, because the writers have only reported a few non-pregnant cases. The claim that eclamptic serum contains less ferment than normal pregnant serum is doubtful, and was not found by the author. The method is entirely a laboratory procedure and absolutely unsuited as an office test. F.

Influence of Ectopic Pregnancy on the Uterus.—Sampson (*Surg. Gyn. and Obs.*, xviii., 5). In twenty-five cases the uterus was removed on account of ectopic pregnancy, or because of the tendency to recurrence of the condition in the other tube or because the other tube required to be removed. The specimens were immediately injected and examined by X-rays and microscopic section, and it was found that under the influence of early ectopic pregnancy the uterus becomes larger than normal, due to hyperæmia and thickening of the endometrium. The increase in size of muscle fibres is not certain. The changes in the endometrium are quite similar to those found in early pregnancy. The entire lining of the uterus takes part in this change. The trabeculæ between the compact layer and the spongy layer of the endometrium are more evident than in the non-pregnant uterus, but not so evident as in early uterine pregnancies. There is often a decidual reaction around the arterioles in these trabeculæ, and the development of the compact layer and also the decidual cells seems to be intimately associated with the arterial invasion of the endometrium, which takes place through the trabeculæ. Venous spaces are found everywhere in the stroma. It is difficult to detect any change in the uterine wall other than arterial and venous hyperæmia. Following the complete termination of the tubal pregnancy uterine involution takes place. The uterus becomes smaller, due to decrease of arterial and venous hyperæmia and atrophy of the endometrium, and there is possibly a certain amount of sclerosis of the radial arteries and their branches. The earliest regressive changes detected were dilatation of the venous spaces and escape of venous blood into the tissues of the endometrium. The regressive changes are apparently due to uterine contractions injuring the structures of the endometrium, interference with the arterial circulation, a condition of venous congestion. Rupture of the superficial venous spaces would give rise to uterine bleeding and involution of the endometrium, while rupture of the venous spaces at the junction of the compact and spongy layers separates the two layers and may give rise to a decidual cast. In the majority of cases the termination of the pregnancy is a gradual process associated with repeated attacks of pain, and some of the products of conception may remain active in the tube for some days or weeks after the commencement of the termination, and therefore the process of involution is delayed in the uterus. F.

Spinal Anæsthesia in Pelvic Surgery.—Anspach (*Amer. Jl. Obs.*, lxix., 5) reports thirty-six cases treated, and draws the following conclusions, that even in expert hands there will be a higher immediate mortality as a routine anæsthetic than either ether, chloroform, or nitrous oxide. It has no post-operative mortality or morbidity, and in this respect is superior to the other general anæsthetics, except nitrous oxide and oxygen. It is more troublesome to the surgeon, and should not be used unless the surgeon has familiarised himself with all the details of the *technique;* he should also be fully aware of the complications likely to arise. Spinal anæsthesia is the best form of anæsthetic in selected cases, but should be reserved for those operations in which the dangers of general anæsthesia are increased. F.

Predetermination of Sex.—Bram (*New York Med. Jl.*, June 6th, 1914) records the result of his efforts towards the predetermination of the sex of the infant in the case of thirty women who were under his care. He based his procedure on the view that excess of nourishment of the mother predisposes to the birth of a female child, while deficiency in nourishment predisposes towards the birth of a male. Further, that the sex of the infant is largely determined by the activity of the adrenal glands of the mother, and where deficiency in this activity exists a female child is likely to be formed. Of the thirty patients twenty came under treatment during the first two months of pregnancy, and ten after the second month. These mothers all desired to have male children. These patients were all put on a strict diet till after the fourth or fifth month of pregnancy. Rich albuminous food, such as eggs, meat, fish and cheese, were strictly forbidden, and the diet largely consisted of such substances as cereals, fruits, potatoes, milk, buttermilk, and butter. Each patient was given after each meal a capsule containing two grains of the extract of suprarenal gland combined with four grains of lecithin. Of the twenty patients who came under treatment before the end of the second month of pregnancy all gave birth to male children, and of the remaining ten six gave birth to male children. Bram concludes that it is safe to say that we probably have at our disposal a definite means for the predetermination of the male sex if the following essentials of treatment are carried out. Treatment should be instituted immediately after the woman has missed her period. Foods rich in albuminous nitrogenous materials should be interdicted. Extract of suprarenal gland combined with lecithin should be administered regularly and the treatment continued during the first five months of pregnancy. K.

Emetine in Dysentery.—Friedenwald and Rosenthal (*New York Med. Jl.*, July 4th, 1914) describe the result of their experience in the treatment of nine patients with dysentery by means of emetine. The patients, seven males and two females, ranged in age from 10 to 42 years. The amœbas were demonstrated in the rectal ulcers in all cases except one before treatment was begun, but could not be observed after the first day of treatment. The patient in whom they were not found had been having frequent injections of argyrol. The result of treatment, however, was so marked that there could be no doubt as to the diagnosis. The proctoscope was used in all instances and the ulcers observed, scrapings being taken for the demonstration of the organisms. Examination of the blood showed a high leucocyte count, which diminished as the disease abated. The drug was employed hypodermically in the form of the hydrochloride in doses of from one-third to one-half a grain three or four times daily for about a week. In all instances the drug was well borne. In a few instances pruritus appeared, which extended over the entire body, but this symptom always disappeared within a week after treatment. Usually after the third or fourth injection the stools began to lessen in number, from eight to ten a day to one or two; the blood and mucus disappeared and the amœbas could no longer be found. In all instances the patients improved rapidly in general health, and the rectal ulcers disappeared after a week or ten days. As a result of their experience, the writers came to the following conclusions:—Emetine is a specific in the treatment of amœbic dysentery. It is quickly absorbed, and its effect is rapid and striking. It produces no unfavourable symptoms, such as nausea, vomiting and depression. Other forms of dysentery are not favourably influenced by this remedy, so that its employment as a diagnostic measure is of the greatest value Recurrences after apparent cure are not infrequent, and therefore it is best to treat all cases showing a tendency to relapse intermittently with emetine. K.

Appendicular Grafting.—Braham (*Brit. Med. Jl.*, July 11th, 1914) reports that a boy, æt. 11, fell when walking on a railing and bruised his perineum, causing extravasation of urine. The tissues in the groin were incised and a catheter passed through a supra-pubic cystotomy. Extensive sloughing ensued and loss of the perineal portion of the urethra. Two months later (November, 1913), an unsuccessful attempt was made to reconstitute the urethra. Another attempt in March failed. At the end of May, 1914, the writer dissected out of the proximal and distal portion of the urethra in the perineum, and removed as much scar tissue as possible. As a resected portion of the saphenous vein was found to have too small a calibre, the patient's appendix was removed and used as a graft. The serous coat of the appendix was scarified and half an inch of its distal end removed, the whole graft being over an inch in length. A rubber catheter was passed through the penile portion of the urethra and the appendix then threaded on it. The point of the catheter was then passed into the bladder. It was then quite easy to unite the mucous membrane of the urethra and the appendix at either end, and that being accomplished, the wound was closed. The catheter came out in four days, but was repassed under an anæsthetic and stitched in. Ten days after the operation the catheter was left out, the perineal wound was healed, and the urine has ever since been passed naturally. The boy is about, and micturates freely and normally without discomfort. S.

Dr. William Bryce, M.D., of 34, Greenhill Gardens, Edinburgh, late surgeon to the Duke of Buccleuch's Militia at Dalkeith, left estate of the gross value of £16,263.

NEW PREPARATIONS.

BURROUGHS WELLCOME'S TABLOID "XAXA" COMPOUND.

Under the formula—

℞

"Xaxa" $3\frac{1}{2}$ gr.
Phenacetini $2\frac{1}{2}$ gr.
Caffeinæ $\frac{1}{2}$ gr.

is presented a convenient means of administering pure acetyl-salicylic acid combined with phenacetin and caffeine. In this product Burroughs Wellcome and Co. have introduced a combination of anti-rheumatic, anti-pyretic and analgesic agents, which may be employed to advantage without any risk of producing gastric disturbance. The tabloid disintegrates easily and is rapidly absorbed. The analgesic and anti-pyretic properties of the contained phenacetin should assist in relieving pain, reducing temperature and combating pyrexial conditions generally, while the addition of caffeine tends to obviate the depression which occasionally follows the use of phenacetin.

"TABLOID" TRIANGULAR BANDAGE.

The use of the triangular bandage in first-aid work is well recognised, and it has been customary to print upon the fabric of the bandage illustrations representing the methods of application. An advance in the quality and clearness of the pictorial representations has recently been effected in connection with the "Tabloid" triangular bandage. The designs are plain, precise, complete, and in accordance with the latest practice. Another point of importance is that these particular bandages are compressed into a small space, one bandage occupying no more room than a matchbox, and they can, therefore, be carried without inconvenience in the pocket of the first-aid man. Each packet is provided with a stout covering which will resist wear and tear.

The ideal bandage is, of course, one that is free from all septic matter, and in order to provide such a dressing, Messrs. Burroughs Wellcome and Co. issue a bandage compressed and sterilised, in germ-proof coverings, which are readily removed and yet not frail. The retail price is 9d. per packet of two, the sterilised variety one penny extra.

Clinical Congress of Surgeons.

We are asked to announce that the medical staff of the Central London Throat and Ear Hospital, Gray's Inn Road, invited their American *confrères* to breakfast at the Great Northern Railway Hotel, at 9 a.m. on Thursday, July 30th, and at 10 a.m. to visit the hospital.

Cards of invitation on application to the Dean.

NOTICES TO CORRESPONDENTS, &c.

☛ Correspondents requiring a reply in this column are particularly requested to make use of a *Distinctive Signature or Initial*, and to avoid the practice of signing themselves "Reader," "Subscriber," "Old Subscriber," etc. Much confusion will be spared by attention to this rule.

SUBSCRIPTIONS.

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CONTRIBUTORS are kindly requested to send their communications, if resident in England or the Colonies, to the Editor at the London office, 8, Henrietta Street, Strand; if resident in Ireland to the Dublin office, in order to save time in reforwarding from office to office. When sending subscriptions the same rule applies as to offices; these should be addressed to the Publisher.

ORIGINAL ARTICLES OR LETTERS intended for publication should be written on one side of the paper only and must be authenticated with the name and address of the writer, not necessarily for publication, but as evidence of identity.

REPRINTS.—Reprints of articles appearing in this JOURNAL can be had at a reduced rate, providing authors give notice to the publisher or printer before the type has been distributed. This should be done when returning proofs.

M.D., L.R.C.P. (Liverpool).—It is still an open question whether the sterilisation by boiling, or the pasteurisation, of cows' milk do not destroy its nutritive value for infants, nevertheless of the two risks, namely, some failure of nutrition from sterilised or pasteuried milk, and fatal infection from milk used as the cow produces it, the latter is undeniably the greater. Experience and prudence, therefore, is in favour of the treated product.

MEDICAL PRACTICE IN THE FEDERAL DISTRICT OF RIO DE JANEIRO.

To the Editor of THE MEDICAL PRESS AND CIRCULAR.

SIR,—By the courtesy of the Privy Council I have received a copy of a despatch from His Majesty's Consul-General at Rio de Janeiro stating the conditions under which persons holding foreign diplomas are permitted to practice medicine, surgery, and dentistry within the federal district.

This I shall be happy to show to anyone who cares to call at this office; it will be incorporated in the next edition of the pamphlet, published by the Council, giving the conditions under which persons qualified in their own country may practise abroad.—Yours faithfully,

NORMAN C. KING,
Registrar.

General Council of Medical Education and Registration,
299 Oxford Street, London, W.

STATIST (Edinburgh).—In reply to your enquiries (a) we have it on the authority of the Registrar-General that no fatal case of small-pox occurred last week throughout the United Kingdom; (b) the population of Aberdeen is not officially given in the returns of Great Cities and Towns, but is, we understand, about 160,000. That of Edinburgh, according to the latest census returns, is given as 321,900, and that of Glasgow 1,047,000.

PUZZLED.—The matter is one requiring consideration, and, after due inquiry, we will communicate with our correspondent privately.

SPES.—We shall be glad to consider the proposed article.

THE MEDICAL DIRECTORY.

To the Editor of THE MEDICAL PRESS AND CIRCULAR.

SIR,—The annual circular of *The Medical Directory* has been posted to every member of the medical profession. Another copy will be forwarded on request, should the first notice have inadvertently gone astray.

We should be glad if practitioners will kindly co-operate in returning forms to us promptly, so that the entries may be as accurate as possible.

To meet the convenience of purchasers, the Directory will be on sale this year EARLY in the month of December.

We are, your obedient servants,
J. AND A. CHURCHILL.

7 Great Marlborough Street, W., July 25th.

T. D. (London, W.).—We regret that through the uncertainty of decisions in the Law of Libel we are unable to publish your letter.

Vacancies.

Certifying Factory Surgeons.—The Chief Inspector of Factories announces the following vacant appointments:—Ashton-under-Lyne (Lancaster), Uppingham (Rutland).

Hulme Dispensary, Dale Street, Stretford Road, Manchester.—House Surgeon. Salary £180 per annum, with apartments, attendance, coal, and gas. Applications to Honorary Medical Secretary. (See advt.)

Rochdale Infirmary and Dispensary.—Senior House Surgeon. Salary £120 per annum, with board, residence, and laundry. Applications to T. Elvyn Kershaw, Secretary.

Bootle Borough Hospital.—Senior House Surgeons required. Salary £120 per annum, with residence, board, and laundry. Applications to the Secretary, 71 Oriel Road, Bootle, Lancs.

Bristol City Asylum.—Second Assistant Medical Officer. Salary £200 per annum, with furnished apartments, board, washing, and attendance. Applications to the Medical Superintendent.

Kent County Asylum, Maidstone.—Fourth Assistant Medical Officer. Salary £250 per annum, with furnished quarters, board, attendance, coals, gas, garden produce, milk, and washing. Applications to Medical Superintendent, Asylum, Maidstone.

Hull Royal Infirmary.—Senior House Surgeon. Salary £150 per annum, with board and furnished apartments. Applications to Chairman, House Committee.

North Lonsdale Hospital, Barrow-in-Furness.—House Surgeon. Salary £150 per annum, with residence, board, and laundry. Applications to the Secretary.

Northampton General Hospital.—House Surgeon. Salary £120 per annum, with apartments, board, washing, and attendance. Applications to the undersigned, C. S. Risbee, Secretary-Superintendent.

Nottingham General Dispensary.—Assistant Resident Surgeon. Salary £180 per annum, with apartments, attendance, light and fuel. Applications to S. Cheesman, Secretary, 12 Low Pavement, Nottingham.

Liverpool Education Committee.—Two Assistant School Medical Officers. Salary commencing at £250, rising to £350, per annum. Applications to be addressed to the Town Clerk, Municipal Buildings, Liverpool. For full particulars see advt.

Appointments.

DIXON, GERALD C., M.B., Ch.B.Manch., Second House Surgeon to the Manchester Royal Eye Hospital.

FLEMING, G., M.B., C.M., M.R.C.P.E., Medical Superintendent to the Durham County Sanatorium.

LOOSELY, CHARLES J., L.R.C.P.Lond., M.R.C.S., Honorary Assistant Anæsthetist to the Royal Dental Hospital, London.

MILLER, S., M.B.Belf., House Surgeon at the Royal Victoria Hospital, Belfast.

MUNDY, W. MAXWELL, M.B., Ch.B.Edin., F.R.C.S., Surgeon to the Ear, Nose, and Throat Department at the Dewsbury and District Infirmary.

OLIVER, M. W. B., M.A., M.B., B.C.Camb., F.R.C.S.Eng., Assistant Ophthalmic Surgeon to the Miller General Hospital.

PURCE, G. R. B., M.B.Belf., House Surgeon at the Royal Victoria Hospital, Belfast.

STIRLING, WILLIAM, M.B., Ch.B.Manch., Resident Surgical Officer to the Manchester Royal Eye Hospital.

Births.

COOKE.—On July 21st, at Birch, near Colchester, the wife of F. H. Cooke, M.R.C.S., of a son.

HOLLAND.—On July 21st, at 55 Queen Anne Street, W., the wife of Eardley Holland, M.D., of a daughter.

PASMORE.—On July 24th, at Chelsham House, Warlingham, Surrey, the wife of Dr. E. S. Pasmore, M.R.C.P., of a daughter.

REW.—On July 19th, at Wotton Grange, Bedfont, Middlesex, to Dr. and Mrs. Rew—a daughter.

Marriages.

ANDREWS—REYNOLDS.—On July 23rd, at St. Albans Abbey, Henry Russell Andrews, M.D., B.S., F.R.C.P., second son of the late Rev. John Marshall Andrews, Vicar of Highgate, and of Mrs. Andrews, 2 Winchester Road, Oxford, to Margaret Dorothea, second daughter of Mr. and Mrs. Walter Reynolds, of Hawk's Wick, St. Albans.

BARON—ABEL SMITH.—On July 25th, at Southwark Cathedral, Barclay Baron, son of Dr. and Mrs. Barclay Baron, of Clifton, Bristol, to Rachel, daughter of the late Abel Smith, M.P., and of Mrs. Abel Smith, of Crowbury, Hertford.

O'CALLAGHAN—HUMPHREYS.—On July 21st, at St. George's Cathedral, Southwark, Thaddeus Turner O'Callaghan, Surgeon, elder son of P. T. O'Callaghan, of West Norwood, to Adelaide Lavinia Humphreys, youngest daughter of the late Thomas Humphreys, of Eaville House, Chester.

TOOTH—ARCHER.—On July 22nd, at Holford Church, Somerset, Dr. Frederick Tooth, of the Old House, Nether Stowey, Bridgwater, to Kathleen, daughter of Mrs. Archer, of Alfoxton.

WALKER—CHARDE.—On July 24th, at Christ Church, Woburn Square, London, W.C., Norman Hamilton Walker, M.D.Lond., D.P.H., fourth son of the late Walter Crellin Walker and Mrs. Walker, of Percy Lodge, Winchmore Hill, N., to Bessie (Bee), youngest daughter of the late Cornelius Charde and Mrs. Charde, of Cardiff.

WARNER—TAYLER.—On July 25th, at Southwark Cathedral, Harold Percy Warner, M.B., B.S., of Rydal, Woodford Green, eldest son of the late Dr. Percy Warner, Woodford Green, to Kathleen Rose, eldest daughter of J. P. Tayler, of Old Charlton, Kent.

Deaths.

BARTON.—On July 20th, at Cleethorpes, Edwin William Barton, M.D., of Searle Lodge, Market Rasen.

BETTY.—On July 26th, at Homeside, Bognor, Amelia Elizabeth, second daughter of the late John Betty, M.D.

BRAUND.—On July 23rd, at midnight, at his son-in-law's, 130 Jerningham Road, New Cross, London, James Montague Braund, surgeon, late of Stratton, N. Cornwall, in his 84th year.

KILGOUR.—On July 23rd, at Cheltenham, Laura Frances, daughter of the late John Stewart Kilgour, M.D., of 2 Keynsham Bank, Cheltenham.

RIDGE-JONES.—On July 25th, at 4 Chesham Place, Gwendoline, the eldest daughter of Dr. and Mrs. Ridge-Jones.

HULME DISPENSARY.
DALE STREET, STRETFORD ROAD, MANCHESTER.
WANTED a HOUSE SURGEON duly registered and fully qualified. Salary £180 per annum. Annual increase £10 to £200, with apartments, coal and gas. Applications, with testimonials, at once, to Honorary Medical Secretary.

THE MEDICAL PRESS AND CIRCULAR.

"SALUS POPULI SUPREMA LEX"

VOL. CXLIX. WEDNESDAY, AUGUST 5, 1914. No 6.

NOTES AND COMMENTS.

The Aberdeen Meeting of the B.M.A.

THE verdict of those members of the British Medical Association who attended the annual meeting in Aberdeen was that it was a most successful gathering. The native attractions of the "Silver City" are sufficient in themselves to ensure the pleasure of visitors at any time, but last week these were enhanced by fine weather and the splendid welcome extended to the Association by the local medical men and the citizens who did all in their power to entertain the members. One feature of the scientific proceedings will be connected with the Aberdeen meeting, and that is the prominence given in the three great addresses to medical history. Perhaps something in the atmosphere of the place itself, with its ancient and historic university and other associations, may have been responsible for this retrospective vein of thought. It must not be supposed, however, that these discourses were for this reason inferior, from a scientific standpoint, to those of previous years. On the contrary, all three were of a high order and full of suggestiveness. In view of the increased interest now shown in medical history it might almost be as well to add a new section or a sub-section specially to consider matters within its province at future annual meetings of the Association. Next year, at Cambridge, the propriety of so doing seems to suggest itself, and we beg to submit the proposition for the consideration of the Council of the Association.

Queen Alexandra Day Fund.

THAT the place of the Queen Dowager in the heart of the nation stands unchanged has been once again shown by the success of the Alexandra Rose Day collection in aid of the London hospitals. After all expenses have been paid, the secretary, Miss C. May Beeman, has had some £20,000 to distribute, or about £6,000 more than the amount available last year. It is gratifying to note that the chief item of expenditure was that incurred in the purchase of the roses sold by the ladies who kindly acted as volunteer street collectors. This year the distributing committee under the Lord Mayor have made their grants upon a new and far more equitable system than that adopted in former years. It is understood that Queen Alexandra indicated, at the desire of the committee, certain hospitals to be benefited to the extent of £6,645. The result is that many small hospitals have for the first time participated in the grants of this most popular Fund, a fact that will do not a little to advance its prospects in the future. Some large grants have been made this year to some of the great and wealthy hospitals. It is not altogether easy to understand why citizens should be asked to contribute in the streets to a charity which literally draws in funds by special appeal in hundreds of thousands of pounds. On the other hand, there is every reason why the man in the street should contribute to the support of the small and special hospitals which minister to his needs and have done so for many a year, and some of the best and oldest of which are ignored by the King Edward Fund, which is gradually crowding out of existence the Hospital Sunday Fund.

The Alexandra Fund Precedent.

THE recognition of the small and special hospitals by the Alexandra Fund marks a change of policy that is consonant with the universal kindness and tact which has always characterised our Royal Family in these matters. The small hospitals, in spite of their many years of usefulness and their great share in the advance of medical science, are ignored, except in a few special instances, by the King Edward Fund, whose awards are made by a small committee, which includes no representatives of the small and special medical charities, but is composed of medical men and philanthropists, who, however amiable and beyond reproach individually, have nevertheless been always identified with a policy of absolute non-recognition of the smaller medical charities. THE MEDICAL PRESS AND CIRCULAR has consistently raised its voice against this defect in the administration of the Hospital Sunday and the King Edward Funds. It has again and again contended that the fundamental error is to be found in the non-representative nature of the two Funds in question. The Hospital Saturday Fund, in which the small institutions are adequately represented, bestows its grants upon great and small alike. A system that collects huge sums of money from all classes of society and then entrusts its distribution to a small knot of persons who rigidly exclude the smaller institutions must always remain open to the more or less grave suspicion that public interests are subordinate, in some instances at least, to private prejudices. Hence the supreme importance of the wider and more liberal extension of grants to all sorts and conditions of hospitals inaugurated by Queen Alexandra.

Too Few Cottage Hospitals.

AT an inquest held last month at Myrtle Hill, Llechryd, upon the body of a groomsman who died from the effects of a horse-kick in the abdomen, the medical man who gave evidence took the opportunity of calling attention to the pressing need for the establishment of cottage hospitals in rural districts. The exact nature of the injuries sustained by this unfortunate man was not stated, but it is within the bounds of possibility that if an exploratory abdominal operation had been performed within a few hours of the accident and the torn viscus sewn up his life might have been saved. It is sad to think of the number of lives lost annually from want of that skilled surgical attention such as can only be provided in a cottage hospital. There is a far greater need for these institutions in small towns and villages than for reading-rooms and libraries, desirable though these may be. Where human life is at stake no effort should be spared to provide means for its preservation. Surely no more fitting monument to anybody whose name it is desired to honour could be found than a cottage hospital established in some country district where its beneficent work would continue to furnish the best tribute to the memory of its founder. The erection of clock-towers and statues, however beautiful, and even useful, cannot compare in practical utility with one small cottage hospital. We commend this need to all pious philanthropists and especially to those who desire to erect some memorial and who are yet undecided as to the exact form it should take.

Shellfish and Enteric Fever.

The gradual disappearance of enteric fever from our midst has proved one of the outstanding triumphs of modern sanitation. The decline of that insidious malady must be ascribed to various preventive agencies, many of which have originated in the fact that the malady in question is largely a water-borne disease. The passage of the infective *Bacillus typhosus* from contaminated water to the interior of shellfish, and thence to the alimentary canals of human consumers of that sort of food, seems a plain and straightforward concatenation of circumstances, but for all that the connection was detected only within comparatively recent years. Indeed, there are not wanting persons who still maintain that shellfish do not spread typhoid fever. It is not altogether surprising that those interested in the sale of shellfish should seek to discredit a theory that is damaging to their pockets. The *Fish Trade Gazette* of July 25th, in an article upon the subject, is "convinced that the shellfish trade has been very badly used." The writer bases his remarks on the report of the Markets Committee of the City of Manchester. The particular subject dealt with is mussels, and it is pointed out that the incidence of enteric fever does not correspond with the periods of the greatest consumption of mussels. In Salford, it is added, the evidence implicating shellfish was "exceedingly slight."

Cooked *versus* Uncooked Shellfish.

We are not aware that any serious accusation has been advanced against the mussel in this particular connection. Indeed, having regard to the fact that the mussel is boiled before consumption, it is presented to mankind in a condition which would preclude the transference to the consumer of living pathogenic bacilli. The mussel is invariably cooked for eating purposes, so that it is completely sterilised, and the only living microbes conveyed by it would be those acquired by contamination after cooking. The attempt to exculpate all shellfish because no blame can be attached to one particular kind, the mussel, is futile and misleading. The first great distinction, so far as the spread of disease is concerned, depends on the primary fact as to whether the shellfish is cooked or uncooked. It is a matter of established scientific observation that enteric fever may be, and is, conveyed by means of contaminated oysters. That fact cannot be gainsaid, and a similar statement applies to other kinds of shellfish that are eaten raw. The saving grace of the kitchen saucepan converts the mussel from an active danger to an innocuous foodstuff. It can render a similar service to the oyster; but mankind has a fixed and lasting preference for the flavour of the living oyster. It is interesting to note, by the way, how the humanitarians connive at the barbarous way in which the oyster is swallowed alive. Nowadays it is the fashion of these tender-hearted emotionalists to protest against the cruelty of exterminating flies by "sticky" fly-papers. Why strain at a gnat to swallow an oyster?

LEADING ARTICLES.

THE ADDRESS IN MEDICINE AT THE ABERDEEN MEETING OF THE B.M.A.

In the annual Address in Medicine delivered before the British Medical Association at its summer meeting, we have come to expect an oration that will provide food for reflection, and which, at the same time, will enable us succinctly to review the various stages by which our present knowledge has been gained. The learned address delivered by Dr. Archibald Garrod last week at Aberdeen is, in these respects, a model which future lecturers might do well to copy. In dealing with medicine from the chemical standpoint he has aptly unfolded to our gaze the wonderful possibilities that underlie the influence of chemical science, and especially of that branch known as bio-chemistry, in modifying not only our conception but also the treatment of disease. Since the early investigations of Wöhler and Liebig the progress of chemical research in its intimate relations to practical medicine has grown steadily year by year. Starting from the first synthesis of urea, the investigations of workers in the domain of the carbon compounds has proceeded apace until the molecular structure even of the proteins themselves is no longer hidden from the analyst's ken. Fresh conquests are still being made in our knowledge of those mysterious and complex organic bodies known as enzymes, and the researches of Abderhalden have opened up a new field of investigation into certain specific chemical reactions. Some of these cannot but be far-reaching in their effect upon practical therapeutics, and in one direction, at least, the use of hormones promises to be of real service in conditions where the various internal secretions are judged to be at fault. How profound may be the bio-chemical changes involved in the diverse group of affections usually comprehended under the term "disorders of metabolism" we can, in the present state of our knowledge, hardly estimate. There is one point in Dr. Garrod's address to which we would specially draw attention, and that is that most, if not all, of our therapeutic efforts are inefficient as compared with the natural powers of protection with which the body itself is endowed. Many of these mechanisms are resident in the blood, while others appear to be associated with, or dependent upon, the glandular secretions. If through a greater understanding of the relationships between the chemical composition of the foodstuffs and that of the bodily secretions we shall be able the better to influence the complex processes of metabolism, we shall have gained much as practitioners. In the case of diabetes we do possess the knowledge whereby the output of sugar is largely in the hands of the medical man. With regard to the restriction or prohibition of certain articles of diet in other diseases, much responsibility rests upon the medical profession. In the twentieth century, however, we are in possession of greatly increased knowledge both from the physiological and also from the chemical side, and the help thus derived from the pathological and clinical laboratory should never be minimised nor refused by the practitioner who is anxious to do the best for his patients. Increased powers of diagnosis, as afforded by modern scientific tests, the basis of most of which consists of the application of some profound chemical reaction, must lead to correspondingly improved methods of treatment. By calling the attention of the medical profession, as it does, to one aspect, and that of great importance, of the science of medicine, the Address in Medicine of 1914 will be remembered as a most thoughtful and earnest discourse.

THE ADDRESS IN SURGERY AT THE ABERDEEN MEETING OF THE B.M.A.

An account of the evolution of the practice of surgery since the introduction of anæsthetics and asepsis, with a vivid description of all the horrors attendant upon operations before the days of Morton, Simpson and Lister, would, we venture to think, provide the average reader with quite as much excitement as may be found within the pages of most novels or works of adventure. To say that the modern surgical operation is absolutely without risk would, perhaps, be asserting that which is not true, but that it is practically so in favourable circumstances and when undertaken by skilled hands few will be found to deny. The attainment of the highest success in surgery, however, does not lie in operative manipulations alone. As Sir John Bland-Sutton, F.R.C.S., Surgeon to the Middlesex Hospital, remarked in his stirring Address in Surgery delivered in Aberdeen last week, the surgeon is dependent upon many things—notably upon histology; and he, like the physician, has also to acknowledge the aid given him by the findings of the clinical laboratory. The examination of the blood, for instance, is of supreme importance in determining the advisability of an operation for the removal of the spleen. Recent research in connection with the choroid plexuses must cause us to modify greatly our conceptions with regard to the function of the cerebro-spinal fluid, which, according to Sir John Bland-Sutton, has been thereby transformed from that of a water-bed for the central nervous system to an actual "pool of Bethesda." Exactly upon what lines the "surgeon of the future" will work remains to be seen. To some extent he may even become an immunist, like his brother physician, but it is not unlikely that chemio-therapeutic means will influence his treatment, particularly in disorders of the nervous system. Dealing with the influence of sepsis upon malignant disease, especially of the large intestine, Sir John Bland-Sutton pointed out that the surgery of cancerous growths was greatly hindered by septic organisms. The comparison of an army of operators, dressers and nurses, all in a perfectly sterilised rig-out, to engage in the resection of a malignant growth of the colon, itself swarming with pyogenic organisms, to "killing fleas with bludgeons" may raise a smile, but nevertheless the incongruity of the situation must have often struck a critical onlooker. If some chemio-therapeutic agent, analogous to salvarsan, should ever be discovered which would be a specific for all pyogenic cocci, much of the surgeon's work would be simplified. One timely word of caution contained in the Address may be referred to—namely, the necessity for estimating all laboratory reports in the light of clinical experience. To pin one's faith to one without the other is only to court failure.

CURRENT TOPICS.

The Clinical Congress of North American Surgeons.

The North American surgeons last week held their fifth Annual Clinical Congress in London. Their programme, needless to say, was full and varied from the social as well as the scientific point of view. One interesting experience was that of witnessing the skill of London surgeons in a variety of operations. Cancer cases were the chief object of study yesterday, and many skilful and instructive operations and demonstrations were seen. The visitors were extremely interested in Mr. S. G. Shattock's lecture at the Royal College of Surgeons on the origin and growth of tumours, in the course of which he propounded the theory that cancer is neither hereditary nor transmissible from one person to another, but may be transferred from one portion of the body of a patient to another part of the body by auto-inoculation. Mr. Sherren's operations for cancer at the London Hospital were spoken of in terms of high praise. In one case he removed practically the whole stomach and substituted for it the upper part of the intestine. A long series of operations performed by Mr. Spencer at Westminster Hospital, including operations for abdominal tumour, excision of cancer of the breast, jejunostomy for inoperable cancer of the cardiac half of the stomach and excision of cancer ring from bilocular stomach, were spoken of as really wonderful. It is not possible to review even briefly the field of work covered by the Congress, which will be closely followed by surgeons all over the world. To some extent the Congress has been overshadowed by the British Medical Association meeting going on in Aberdeen at the same time. In early issues our readers will have an opportunity of perusing some of the most prominent papers read at this notable gathering.

Cleverness.

If a medical man is doing well we are sure to hear it said that he is clever. The users of the term are quite vague as to its significance, but they mean it as a compliment. Really it is far from that. Disease is not combated by a sophisticated cunning, nor has an assumption of breezy astuteness any terrors for the weakest micro-organism. Our real weapon is knowledge; knowledge, and not cleverness, is the interest we receive from our toilsome grey-matter investments. To be called clever is really rather an insult. It suggests a scant stability, a puckish perversity, and a meretricious excellence in mental window-dressing that we should not hanker after. We can say with equal dignity and truth that Wright knows something about vaccines, but to remark that Metchnikoff is clever at colons is simply ridiculous. The word clever implies approbation of efficiency tinged with a certain contempt. There are some people who are essentially clever—and no more. They are ingenious, quick and many-sided, but no one could call them geniuses or great. Just as almost any girl deserves the epithet pretty, while her worst enemy could not call her beautiful. The typical clever doctor is rather a dreadful person. He knows his work, and has all the qualities of an expert salesman. His therapeutics are down to the minute, and he is always in a hurry to use the latest cure while it is still efficacious. He usually has an eye to what people call "the main chance," and does a lot of good work of no lasting value. On the whole cleverness is a tinkling cymbal. It is nothing worth. It combines a shallow, hand-to-mouth, mentality, with three lines of Du Bartas, but it will never even change the pebbles of our puddly thought to anything at all resembling oriental pearls.

Oral Sepsis as a Cause of Death.

A distinct advance in the practical importance of oral sepsis as an established malady was last week registered by its appearance as a cause of death in the Southwark Coroner's Court. The septic condition of the teeth and sockets was the cause ascribed by Dr. Larkin for the death of Rosina Snelgrove, aged eight years. He said that both the temporary and permanent teeth, the sockets from which teeth had been extracted, and the gums were in a bad condition. The germs had entered the blood stream, and set up general blood-poisoning throughout the body. Dr. Larkin added that one of the most distinguished members of the medical profession died recently from a precisely similar cause. In that instance the patient was a busy man, and had no time to attend to his teeth, and his illness was, like that of the deceased child, of short duration. The jury returned a verdict in accordance with the medical evidence.

Death Certification.

We all of us have to sign death certificates on occasion. Some of us take them calmly as of no more significance than the eternal "not fit to follow his employment" scripts that we endlessly issue. Others have, or make, time to think about them. They are occasionally depressing. The few ill-chosen words are all that is left of a good friend or a valuable chronic. They are the outward and visible sign of the first of all the premises—"all men are mortal." At the annual meeting of the British Medical Association at Aberdeen, Sir Victor Horsley and others have been urging a reform in the matter of these and other certificates. We all know that at present they are almost valueless from a statistical standpoint. It may happen that our diagnosis is uncertain or even wrong, but we have to be definite after death howsoever we wavered while our patient was alive. There are many cases where we do not even fill up the certificates as we know we should. We do not wish to hurt the living so we magnify the dead. Of course, we do not issue false certificates—such a thing is unthinkable; but, whilst avoiding saying that which is not, we omit to mention that which obviously is. We are encouraged to do so by the hopeless terminology to which we are confined. Sir Victor mentions that the Registrar-General's causes of death include "hysteria," "neuralgia" and "neuritis," and that in 1911 501 deaths were attributed to neuritis. For "neuritis" cognoscenti read "alcohol." Venereal diseases, too, are almost always dodged. On the whole the statistics obtained from death certificates are nothing like as good as they might be, and under the present system it is too much to ask the average man to offend his patients where he need not. The solution of the difficulty is very clear. So clear that we are surprised at its suggestion. Sir Victor proposed the immediate institution of a confidential system of death certification. There is no reason against it. When one of the public is dead it is no concern of the others what terminological inexactitudes are applied to the manner of his exit.

Payment for Medical Certificates.

An inquest held last week at Sheffield throws a lurid light on the popular estimate of medical service. The friends of a deceased panel patient complained bitterly at an inquest of the conduct of a medical man in compelling payment for a death certificate. The jury returned a verdict of death from misadventure, and passed a rider disapproving of the doctor's action in charging a shilling for death certificates to such poor people simply because they are panel patients. This extraordinary comment illustrates somewhat vividly the attitude of the man in the street with regard to medical certification. So used is he to gratuitous service that he has come to regard this special form of assistance as a right as regards medical certificates of all kinds. It has often been pointed out in these columns that the State has exploited medical men for gratuitous service in a way that would not be tolerated in any other profession. What would the legal profession, with its multitudinous fees, say were a variety of responsibly signed documents of an absolutely indispensable legal nature to be demanded of them compulsorily without fee or reward? One of the ever-present annoyances of the honorary hospital physician or surgeon is the request for certificates by patients, who often draw sums of money on the strength of documents thus obtained. We go the length of asserting that under no circumstance should any medical certificate be granted without a corresponding fee, and if the person to whom it is granted be unable to find the necessary amount, it should be paid by the body by whom the certificate is demanded, whether that be a private or a public organisation.

S.P.C.P.

The paternalism of the German Government is a thing of joy to many of us. It amuses us to think of the host of things we do that are "*verboten*" to others. The idea of being fined for riding a bicycle without holding the handles gives us over to laughter which becomes Olympian when we remember that rescuers of drowning people have been indicted for bathing in forbidden waters. We feel so superior. We thank God we are not as other men are, but free citizens of a free country. And we keep a look-out for instances of grandmotherly legislation on the Continent. According to the *Chemist and Druggist*, the Bavarian Government is keeping up the Empire's reputation. It has passed a law for the prevention of cruelty to plants, which forbids the pulling up of certain protected plants except by teachers and students of natural history and members of societies devoted to the study of natural science, who may, through the instrumentality of a police permit, approach the authorised sacrifice. Of course, the definition of a student of natural history is rather difficult. So far it has been decided that chemists' apprentices are students, but the fully-fledged pharmacist is presumed to know all that there is to know, and is by no means to pluck the amaranthine flower. We wonder how the Government proposes to compete with the floriferous infant. Is he *prima facie* a "student of natural history," or is he merely protected by his tender years? We fear that a dare-devil race of daisy poachers will descend on Bavaria, and, with little children as accessories, will "run" protected herbage with the ease and frequency with which Irishmen import rifles. There will be trouble. Flower-pickers will have to peep before they pluck, and a course of botany and a dictionary of flowers will be adjuncts to every country ramble. Flowers will become unpopular. They will blush unseen and unsought. The seeking will be too risky. We can apostrophise with Milton: "O, fairest flower! No sooner blown but blasted."

The Sixth International Dental Congress.

This week the sixth International Dental Congress—the first ever held in this country—is being held in London under the presidency of Mr. J. Howard Mummery. About 2,000 dentists of all nationalities will attend the meetings. There will be ten sections, and among the papers read are those of Sir R. J. Godlee, upon "The General Effects upon the System which may be attributed to Toxæmia of Oral Origin." Mr. Norman G. Bennett, president of the section of oral hygiene, will report on "The Effects of Dental Treatment on National Health and Physique." Dr. J. F. Dowsley, of Boston, will describe the Forsyth Dental Infirmary for Children—an institution which has cost one million dollars, and will be opened in the autumn. An informal social meeting of the Congress took place at the Hotel Cecil on Monday evening and the Congress was formally opened by Mr. Herbert Samuel at the Central Hall, Westminster, on Tuesday, at 10 a.m. The social engagements included a reception by the Lord Mayor and Corporation at the Guildhall on Tuesday, at 8.30, an invitation banquet given by the Government on Wednesday, and a Congress banquet at the Anglo-American Exhibition on Thursday. The British Dental Association will give a reception at the Natural History Museum, South Kensington, on Thursday.

PERSONAL.

Dr. Kate Anne Platt has been appointed Principal of the new Queen Mary Medical College at Delhi.

Mr. G. Viner, M.D.Lond., F.R.C.S.Eng., has been appointed Assistant Surgeon to the Royal Westminster Ophthalmic Hospital.

Mr. A. W. Bourne, M.B., B.C.Cantab., F.R.C.S. Eng., has been appointed Obstetric Surgeon to Outpatients at St. Mary's Hospital.

Professor Paul Reclus, the eminent surgeon, who was largely instrumental in making general the use of cocaine as an anæsthetic in surgery, died in Paris on Wednesday last at the age of 67.

Professor J. C. Bose, of Calcutta, will deliver a lecture at the Royal Society of Medicine on October 30th, on "The Modification of Response in Plants under Action of Drugs," illustrated by experiments.

Dr. Fielden Briggs will preside at the annual meeting of the Brussels Medical Graduates' Association to be held at the Earl's Court Hotel, Tunbridge Wells, on Saturday next, August 8th, at 1.30.

The Duncan and Lalcaca medals of the London School of Tropical Medicine have been won by Captain A. C. Munro, M.D. (Glasgow) of the Indian Medical Service, who passed the recent qualifying examination with distinction.

Dr. A. W. Neill, senior assistant at the Royal Edinburgh Asylum for the Insane, Edinburgh, has been appointed physician-superintendent of Warnford Asylum, Oxford. Dr. Neill has been six and a half years on the staff of the Edinburgh Asylum.

A large number of the members of the Committee of the Sunderland Royal Infimary and friends recently gathered at the Infirmary Chapel to make a presentation to Dr. A. Bruce Low, one of the Honorary Physicians, who is leaving Sunderland for the South.

Among the distinguished foreign Surgeons present at the Congress of Clinical Surgery last week were Dr. John B. Murphy, of Chicago, Dr. Charles H. Mayo, of Rochester, Professor Schmiegelow, of Copenhagen, Professor König, of Freiburg, and many others of world-wide fame.

Prof. William Stephenson, Emeritus Professor of Midwifery in the University of Aberdeen, was presented last week with a handsome portrait of himself by Mr. C. Lindsay Smith, while another portrait by the same artist was handed over to the University to be hung in the portrait gallery.

The Madras Government has decided upon a close scientific investigation into the causation and prevention and the course of diabetes, and has appointed Dr. S. W. Patterson, a Melbourne doctor, who holds a Beit Fellowship, which carries with it £250 per annum, which will be increased by the Beit trustees to £400 per annum, while an anonymous native donor in Madras will supplement this with a similar payment, and will also pay for all the necessary equipment.

At Hurst Hill, in the presence of a huge crowd, a memorial was last week unveiled as a spontaneous tribute of those among whom he did his life's work to the late Dr. I. J. Baker. The memorial bore the following inscription:—"He endeared himself to all who knew him by the uprightness of his character, his sympathy with the suffering, and especially by his kindness to the poor man. In affliction he was a spiritual adviser, and cheered the dying with his prayer and words of comfort. By his good deeds, he being dead, yet speaketh."

Of those who served in the Anglo-American Ambulance 40 years ago during those terrible days at Sedan, Paris, and Orleans, Dr. Charles E. Ryan, Glenlara, Tipperary is one of the few survivors. He has only now received the Brevet and Décoration from the French Minister of War, bearing the seal of the Chancery of the Legion of Honour, May 7th, 1914. For his services to the wounded in the same campaign Dr. Ryan had conferred on him at the close of the war the German Military Cross of Louis II. of Bavaria, and also the Bronze Cross of the French Ambulance Society.

CLINICAL LECTURE

ON

ABDOMINAL TUBERCULOSIS. (a)

By EDMUND CAUTLEY, M.D.Cantab., F.R.C.P.Lond.,

Senior Physician in the Metropolitan Hospital and to the Belgrave Hospital for Children.

Abdominal tuberculosis occurs at all ages, and is most common in children and young adults. About half the cases under the age of 15 years are from three to six years old. It may occur in the first year of life, but is comparatively infrequent before the third year, except as part of an acute miliary tuberculosis. Boys and girls are equally susceptible. The glands, intestines, or peritoneum may be affected, alone or in varying combinations.

Ulceration of the intestines is the least common type. It usually begins near the ileo-cæcal valve, and occasionally is very extensively distributed through both the small and large intestine. Anorexia and wasting are the earliest symptoms. Diarrhœa depends on the extent ot the ulceration and on secondary ileo-colitis, the stools becoming offensive and containing mucus, pus, and sometimes blood. In a girl, aged 4 years, who had been ill for eleven months, the above symptoms were present, together with colicky pains, anæmia, and enlargement of the liver. Nothing abnormal could be felt in the abdomen. After death numerous ulcers, many completely encircling the gut, were found in the small intestine; extensive ulceration of the cæcum; and two large ulcers in the colon, which had given rise to considerable stricture. At the bases of the ulcers there was a little adhesive peritonitis, matting together adjacent coils of gut. No caseous mesentric or mediastinal glands were found, a notable point, in view of the opinions held on the introduction of the bacillus *viâ* the alimentary tract. The primary focus was a caseous nodule in the upper lobe of the left lung. Constipation is not infrequent in these cases, although there may be extensive ulceration, and reflex vomiting is not uncommon.

Tuberculosis of the mesenteric glands is a much more frequent condition, often present without giving rise to symptoms and only recognised after death from some other disease. The name "tabes mesenterica" ought to be reserved for cases of this limited type. And yet it may exist without obvious wasting or ill-health, not being suspected until the peritoneum is involved. Sometimes enlarged glands are discovered during routine examination of the abdomen. The common situations are to the right of the umbilicus, above and below its horizontal level, and to the left of and below the umbilicus. As a rule the glands are hard, localised and movable. They must be distinguished from fæces, caseous masses, tumours, chronic appendicitis and subacute intussusception. In a very healthy girl of 15 years, who had lived on the East Coast all her life, there was found a definite lump in the right iliac region a little above the usual level of an appendix abscess. She had a history of two or three attacks of "appendicitis," the last one about a fortnight previously. At the operation this lump was found to be due to tuberculous glands in such an advanced stage of degeneration that one broke down during handling. Both the glands and the appendix were removed, the latter showing marked evidence of old and recent inflammation, and recovery was uneventful. Had no operation been done it is practically certain that the softened gland would have ruptured and caused caseous peritonitis. This is one of the sequels of caseous mesenteric glands. More commonly they caseate, dry up and calcify, giving rise to no further trouble. Sometimes they set up adhesive peritonitis. Many years ago I saw a man, who had previously been in hospital for ascites from which he had made a good recovery. He was feverish and had general bronchitis. I regarded the case as one of general tuberculosis in spite of the history of ascites and of heavy drinking. This was verified after death. In the abdomen were found two cheesy tuberculous masses and generalised adhesions. The liver gave no indication of alcoholic habits, and I had no doubt that the previous ascites was the result of tuberculous peritonitis.

In the diagnosis of tuberculous mesenteric glands importance may be attached to such signs as general ill-health, slight fever, anorexia, constipation, colicky pains and hepatic enlargement. Many of these symptoms are also present in intestinal dyspepsia, to which I shall refer later.

Acute miliary tuberculosis of the peritoneum may be part of a general infection and give rise to no special localising signs. Sometimes acute peritonitis is due to acute tuberculosis of the peritoneum alone and is indistinguishable from other types of infection. Thus a boy, æt. 12 years old, was seized with vomiting and abdominal pain. On the third day he was almost moribund from toxæmia and collapse, with a distended and tender belly. I regarded the case as one of acute pneumococcal peritonitis but, when the abdomen was opened, the peritoneum was found studded with grey and yellow miliary tubercles. He made an uneventful recovery. Sometimes the acute outbreak occurs round the cæcum and simulates appendicitis.

In distinguishing acute tuberculous peritonitis from other types we have certain facts of some assistance. Thus, pneumococcal peritonitis is more common in girls than boys and in half the cases is secondary. The onset is generally sudden, the temperature high, diarrhœa often present, perhaps herpes labialis, and leucocytosis is considerable. Sometimes the peritonitis is diffuse, severe, persistent and rapidly fatal. More often it quietens down in a few days, but diarrhœa persists, meteorism develops and an abscess forms. It used to be thought that an abdominal abscess discharging at the navel was almost invariably tuberculous. I believe such an abscess is often pneumococcal, and in one case I found it due to diverticulitis, resulting in fæcal fistula. A pneumococcal abscess may be encysted, forming an "abdominal empyema," in any part of the abdomen, usually below the level of the navel and generally discharging through the navel in 4-6 weeks. It may perforate the rectum, vagina or bladder.

Gonococcal peritonitis is practically limited to the female sex, being due to an ascending infection

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(a) A post-graduate lecture delivered at the Metropolitan Hospital on May 8th, 1914.

viâ the Fallopian tubes. It is rare before four years of age, and vulvo-vaginitis is almost invariably present. In a localised form it causes salpingitis, which can be recognised on rectal examination. Fever, frequent micturition, alternating constipation and diarrhœa, and the usual signs of peritonitis, perhaps most marked in the lower segment of the abdomen, are present. Acute symptoms subside rapidly, for the vitality of the organism in the cellular tissues is small.

In new-born babes acute peritonitis is generally streptococcal in origin. At all ages appendicitis and perforative lesions must be carefully excluded. And the illness must be differentiated from typhoid fever, acute obstruction, Henoch's purpura, simple and other types of colic, pneumonia and pleurisy, and acute colitis, dysentry and cholera.

The *chronic type of tuberculous peritonitis* may occur as early as three months of age, but is infrequent before the third year. In about one-third of the cases it is acute or subacute in onset with anorexia, wasting, variable fever, abdominal distension, dilated abdominal veins, ascites and anæmia. Enlargement of the liver, a common feature of tuberculosis, is often present.

Various types can be differentiated:—I. *The ascitic type*, with effusion of serum, sero-pus, pus or blood. Serous effusion is far the most common. It varies in extent and may be extreme. A purulent or sero-purulent effusion is the result of rupture of a breaking-down gland, or due to secondary infection.

II. *The caseous, ulcerating or suppurative type* may be limited to one or more caseous masses in the mesentery or omentum, or may be so extensive that the whole of the intestines are matted together with caseous material and have to be removed *en bloc.* I am inclined to the view that localised caseous masses are the result of breaking down glands, shut off by adhesions, and that extensive caseation is due to rupture of a softened gland and dissemination of caseous material throughout the abdomen. Sometimes the omentum is chiefly affected and forms a rolled-up, irregular mass stretching across the abdomen about the level of the navel.

III. *The fibrous, plastic or adhesive variety* is the most common. It is secondary to the dissemination of a few tubercles throughout the peritoneum, or spreads from tuberculous mesenteric glands which do not break down. Local patches may be of similar causation or due to intestinal ulcers. This is the type which is so difficult to diagnose from chronic intestinal dyspepsia. Its main features are abdominal distension, constipation or irregular action of the bowels, colicky pains and general malnutrition. Anæmia is by no means a frequent sign, either in this or the caseous type. I have seen children rosy with the hues of health, although many caseous masses have been felt in the abdomen. In fact, the disease may be just as localised and produce as little general effect as tuberculous glands in the neck.

Now intestinal dyspepsia is a frequent affection between 3 and 12 years of age, being most common at 5 to 8 years. And its main signs are hacking cough, wasting and abdominal distension. These children are usually restless, irritable, nervous and excitable. They have dark rings under the eyes, are apt to turn faint or come over pale, and are liable to colic, stitch and reflex diarrhœa, and sometimes to violent outbursts of temper. Some of these children pass mucus in the stools, and perhaps there is actual catarrh of the alimentary tract. Every year I see several patients of this type in whom a diagnosis of abdominal tuberculosis has been made. It is extremely difficult to diagnose with absolute certainty that there is no tuberculosis, for both conditions may be present in the same child, and the intestinal dyspepsia may be secondary to the tuberculosis. A negative von Pirquet reaction may be of some assistance. Yet the differential diagnosis is of grave importance, seeing that the treatment suitable for tuberculous disease often exaggerates the signs of intestinal dyspepsia, codliver oil and seaside air rarely being suitable. The "Coeliac Disease, or Belly Affection," occurs in infants under 2 years and is rare after 4 years of age, and is characterised by abdominal distension and white stools. It is also often mistaken for abdominal tuberculosis.

IV. *Localised cysts and abscesses* are rather sequels of other types of tuberculosis of the abdomen than primary conditions. They must be diagnosed from other cysts and tumours. In women the truth may be only arrived at by exploratory laparotomy.

Prognosis.—The outlook in tuberculosis of the abdomen depends on social position, age, sex, the type of the disease and partly on the extent. As long as it is limited to the abdomen the prognosis is fairly good, even in the caseous type and still more so in the adhesive and ascitic forms. The acute stage of the ascitic type lasts 4-8 weeks or more, and it then becomes adhesive. The adhesive variety is rarely fatal though it may last for a year or more. Sometimes it gives rise to intestinal obstruction, and general dissemination may occur. In one such case constipation and abdominal distension were severe. On opening the abdomen constricting bands were found and divided, but a few days later death ensued from tuberculous meningitis; and I think the vomiting and constipation were really due to this and not to obstruction by bands. Even in the most extensive cases of caseous peritonitis, in which all the intestines are matted together, it is quite common for the bowels to act normally. The chief bad signs are dissemination, intestinal ulceration, lung infection, pleurisy, obstruction, caseous masses, localised suppuration, and cutaneous hæmorrhages; exacerbations with fever, vomiting, diarrhœa and rapid wasting. Relapses are infrequent.

In *treatment*, primary attention must be paid to hygiene, nursing and diet. Bed is essential during acute stages and for a fortnight at least after fever has subsided. It is better to keep these patients under your own charge, if a decent home and nursing are available, rather than dismiss them to the country or seaside. Parents and relatives are apt to think fresh air is the all important element in treatment, whereas much more depends on careful feeding, nursing and medical treatment.

Feed the patient on milk, peptonised if necessary, Benger's Food, for in its preparation partial digestion takes place, meat jellies, beef tea, beaten-up eggs, vegetable soups or fruit juice, custard pudding, and perhaps a little bread or rusk and milk, during the acute stages, and for some time longer unless the stools are normal in character. Then add to the diet chicken or veal cream; pounded-up undercooked meat and mashed potato; fish and minced meat. Avoid all fermentative foods. Malted foods, malt sugar, and honey are generally permissible. Put shortly, the diet must be highly nutritive and easily digestible, containing little waste matter. Milk must be given in moderation and is often unsuitable, forming large indigestible curds. If so, it must be diluted or partially predigested. Or some of the malted milks and dried milk foods can be given.

Local and general measures for acute tuberculous peritonitis are those suitable for peritonitis from any cause—*e.g.*, bandaging the abdomen for support, keeping pressure off, and applying bran poultices or ice-bags if they can be borne. Incision and drainage is necessary in a few cases. In the chronic ascitic types, and especially if there is any suspicion of purulent effusion, it is advisable to open the abdomen. Paracentesis is dangerous, for the gut may be adherent to the abdominal wall. Surgical measures are not as warmly advocated now as they were a few years ago. Formerly the prognosis of this disease was regarded as very grave. Then it was found that in cases in which the abdomen was opened through a mistaken diagnosis of the condition as one of renal sarcoma, pyosalpinx, ovarian cyst, etc., recovery took place. It was consequently argued that the beneficial result was due to the operation, by letting in air or oxygen, by evacuating toxic fluids, or by altering the tension in the abdomen. Now it is realised that the prognosis is fairly good and that, apart from surgical intervention, patients make excellent recoveries. I only urge operation for the removal of large ascitic effusions, which do not clear up under ordinary treatment, and for the evacuation of pus. If toxic ascitic fluid is let out it is rapidly replaced by a non-toxic fresh effusion, with considerable benefit. The removal of caseous masses is too speculative a procedure to recommend. If, on opening the abdomen for any other cause, breaking down tuberculous glands are discovered, I think they should be removed, although there is a little risk of setting up dissemination.

For the treatment of ordinary chronic cases I rely on inunction of the abdomen with a mixture of equal parts of belladonna and blue ointments and olive oil, spread on lint and bandaged on. Recently I have used Iodex, an ointment containing 5 per cent. of iodine, with good effect. X-rays are injurious as they induce leucopenia. Internally I give iodoform pills, gr. i-v, t.d.s., or creosote, alone or with codliver oil and malt. Creosote, guaiacol and styracol are all useful for diarrhœa and tympanites. Bismuth and opium may be given for diarrhœa if there is little or no meteorism. It is usually due to erroneous diet or to ulceration. For constipation rely on codliver oil and malt, and careful feeding. If drugs are needed give calomel, sulphate of soda or magnesium, or enemata of oil or glycerine. During convalescence, Nourry's wine containing iodine, gr. 1.5, and tannin, gr. 3, per oz., in doses of dr. i-iv with meals twice a day may be given.

Tuberculin has not proved in my hands of any certain value, and in some cases it has appeared distinctly injurious. I am convinced that, under careful treatment, the outlook is distinctly good, but that treatment must be persisted in steadily for a long time, and much attention given to minutiæ, and especially to the digestibility and suitable character of diet.

Note.—*A Clinical Lecture by a well-known teacher appears in each number of this Journal. The lecture for next week will be by Prof. Ed. Laval, M.D., of the Faculty of Medicine of Paris Subject : "Grave Surgical Decisions in Daily Practice."*

ORIGINAL PAPERS.

RESULTS OF OPERATION (LARYNGO-FISSURE) FOR INTRINSIC CANCER OF THE LARYNX.

By PROFESSOR E. SCHMIEGELOW,
Copenhagen.

Ladies and Gentlemen,—Surgical treatment of intralaryngeal cancer gives exceedingly good results, especially when compared with those obtainable by surgical treatment of cancer in other internal organs.

On examining this fact we find it to be due to the peculiar manner in which intrinsic cancer of the larynx originates and developes and spreads, as was originally pointed out by my friend Sir Felix Semon. It would be interesting historically to consider the development of the pathology, diagnosis and treatment of intrinsic cancer of the larynx, but lack of time forbids me doing so. You must, however, permit me to state here in London, speaking to an assembly of prominent American and English surgeons, that, in my opinion, the whole of our present knowledge of the diagnosis and treatment of this disease is founded on the works of Semon and Butlin, who, towards the end of last century, entirely revolutionised our views with regard to the malignancy of intralaryngeal cancer. Before their day the surgical treatment of this disease had always been regarded as almost hopeless, but Semon showed us that the chief reason of this was, that the disease was always diagnosed too late, so that it was too far advanced to give any good operative result.

Having further learnt that intralaryngeal cancer in the great majority of cases appears as a primary cancer of the vocal cord, and therefore soon causes hoarseness, we have means of recognising the disease at an early stage of its development, while still limited to the vocal cord, and so of a probable radical cure by removing the diseased vocal cord through a laryngofissure.

To illustrate the frequency of primary cancer of the vocal cord I wish to draw your attention to this table of 66 cases of intralaryngeal cancer which have come under my observation :—

Table A.—Primary Seat of Intralaryngeal Cancer.

No specified localisation ..	in 18	cases.
Vocal cord	36	,,
Sinus Morgagni	2	,,
Arytenoid region	4	,,
Epiglottis	1	,,
Ventricular Band	5	,,
	66	cases.

In the first 18 cases the primary seat of the disease could not be localised as the tumour had extended too far into the larynx when first observed.

The table clearly shows that cancer of the interior of the larynx in by far the majority of cases originates as a growth of one vocal cord, generally in the central part of it, and that it can therefore be radically removed. If the disease, however, has extended to the anterior commissure the prognosis becomes more serious, as under these circumstances the thyrotomy cuts through the growth and may possibly be followed by a recurrence.

Those cancers of the larynx which do not primarily attack the vocal cords have, on the contrary, a bad prognosis; firstly, because they very often are not discovered and taken in hand until they have spread so far that there is no possibility of a radical cure by means of a laryngofissure; secondly, because these extra-cordal-cancers are generally of a more soft medullary character, growing quickly and with greater tendency to involvement of the neighbouring lymphatic glands.

The only exceptions to this are the pedunculated adeno-carcinomas which spring from the aryteno epiglottic folds. Of these I have seen three cases which had a relatively good prognosis and could be treated endolaryngeally with favourable results.

Having made the diagnosis by means of laryngoscopic inspection, supported by microscopic examination of a portion removed through the mouth, one has to remove the growth as soon as possible by means of a laryngofissure.

This operation should be performed as indicated by Butlin and Semon who about 1890 inaugurated this treatment and proved that this comparatively safe operation was sufficient, if only performed soon enough.

I myself, chiefly following their instructions, have operated in the following manner:—

The operation is always performed under general anæsthesia. I begin with morphium-ether and make a low tracheotomy. Hann's Tampon-cannula is introduced and the narcosis is continued with chloroform. The thyroid cartilage having been divided and the interior of the larynx opened, I fill the pharynx with sterilised gauze introduced from below through the split larynx in order to prevent the saliva from descending and interfering with the scene of action. According to Semon the larynx is packed with gauze soaked in a 10 per cent. solution of cocaine, to which I add a few drops of a 1 per mille solution of adrenalin in order to make the mucous membrane of the larynx anæsthetic and bloodless. Then the neoplasm, together with the whole diseased vocal cord, is removed by means of knife and scissors.

All the diseased area having been removed and the bleeding stopped, we formerly filled the larynx with a tampon of Iodoform gauze, but after Butlin taught us to give up tamponading and to close the thyrotomy wound at once, the results of operation have been much better.

The patients are now able to swallow on the day of operation and can leave their bed a few days later. This, of course, is of the greatest importance in preventing complications in the lungs, specially in elderly people. My two eldest patients, respectively 71 and 74 years old, were able to leave their bed on the second day, and they are both alive and well, now at the age of 80 and 76 years.

Thyrotomy could only be performed in 33 of my cases treated up to 1912 as shown in the following table :—

Table B.—Results in 70 Cases of Cancer of Larynx.

		(Extrinsic & Intrinsic.) Cured.	Died or relapsed.
No treatment ..	10	0	9
Tracheotomy ..	8	0	8
Endolaryngeal removal	5	1	4
Thyrotomy ..	33	18	15
Subhyoid Pharyngotomy	1	0	1
Partial resection of the larynx	4	0	4
Total resection ..	9	1	8
	70	20	50

The result of these 33 thyrotomies was that 28 patients survived the operation whilst 5 died from pneumonia, due chiefly to post-operative hemorrhage.

Amongst the 28 patients recurrence took place in 10 cases, whilst 18 are alive and well. These 18 had the carcinoma entirely limited to the vocal cord and the diagnosis was made at an early period of the disease—with only two exceptions. The first of these was a man æt. 44 years (see Table D, No. 11), who had a cancer of the posterior wall of the larynx, and whom I was able to follow for three years after the operation, when I lost sight of him. The second was a man, aged 28, suffering from an epithelioma of the left ventricular band, anterior commissure and the anterior part of the right ventricular band. This patient I operated on 14 years ago, and since then he has been on an expedition to the North Pole and is still alive and well.

The last 4 patients were operated in 1912 and have therefore only been under observation for about 2 years since the operation. But they were all cases of quite limited epithelioma of the vocal cord and were operated so early that there is not much chance of recurrence.

Patient No. 7, a man aged 61, was operated in 1905 for a cancer of the vocal cord. During the following 7 years his larynx remained perfectly healthy, but he now has a quickly growing cancer in the throat requiring tracheotomy. Ought this to be considered as a recurrence or as an accidental cancerous infection of a larynx which has kept perfectly healthy for 7 years after operation? Personally I am inclined to look upon it as an accidental reinfection. In all the other cases of recurrence this took place within a year after the thyrotomy.

The functional result was exceedingly good in all cases. The voice was strong, generally sonorous, but in a few cases hoarse. The man aged 71 was operated on in 1905; I saw him last in 1913, he was then 79 years old and had a strong, healthy voice.

A clergyman aged 55 who was operated in 1896 fulfilled his duties for 8 years and preached every Sunday in two churches.

The two men, aged respectively 66 and 67 years, who were operated in 1912 are able to make speeches to large assemblies with a comparatively clear voice.

So as to get a broader basis of judgment as to the results of thyrotomy in cases of intrinsic cancer of the larynx I have combined in the following table my own experiences and those of F. Semon, Chiari and St. Clair Thomson. The results are as follows:—

Table C.—Results of Operation by Laryngofissure.

	Cases.	Cure over 3 years.	1—3 years.	Under 1 year.	Recurrence.	Death from operation.
Semon	24	15	4	1	3	1
Chiari	29	11	4	—	11	3
Schmiegelow ..	33	11	7	—	10	5
St. Clair Thomson ..	10	7	2*	—	1	0
	96	44	17	1	25	9

You see herefrom that of 96 operated patients 52 (= 63½ per cent.) *were cured for more than one year after the operation.*

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(1) Secondary operation of removal of larynx and now alive 5 years later.
(2) Died from other causes 15 months after laryngofissure

TABLE D.—TABLE OF 18 CASES OF INTRINSIC CANCER OF THE LARYNX, THYROTOMISED WITHOUT RECURRENCE.

	Age	Sex.	Date of operation.	Time of observation.	Annotations.
(1)	62	Male	1892	18 years	Died 1910 of cancer rectum. Larynx free.
(2)	28	Male	1900	14 ,,	Alive, no recurrence.
(3)	50	Male	1904	10 ,,	Alive, no recurrence.
(4)	69	Female	1904	10 ,,	Alive, no recurrence.
(5)	71	Male	1905	9 ,,	Alive, no recurrence.
(6)	55	Male	1896	8 ,,	Died of cancer of stomach; no recurrence in larynx.
(7)	61	Male	1905	8 ,,	Alive.*
(8)	56	Male	1909	5 ,,	Alive, no recurrence.
(9)	47	Male	1905	4 ,,	Died of *tuberculosis* 1909. Larynx free.
(10)	63	Male	1910	4 ,,	Alive, no recurrence.
(11)	44	Male	1890	3 ,,	Lost sight of.
(12)	55	Female	1911	3 ,,	Alive, no recurrence.
(13)	38	Male	1911	3 ,,	Alive, no recurrence.
(14)	66	Male	1911	2½ ,,	No recurrence, died of some other disease.
(15)	58	Male	1912	2 ,,	Alive, no recurrence.
(16)	67	Male	1912	2 ,,	Alive, no recurrence.
(17)	66	Male	1912	2 ,,	Alive, no recurrence.
18)	74	Male	1912	2 ,,	Alive, no recurrence.

* Seven years after the operation cancer recurred in the larynx probably new infection.

THE SUTURE OF THE LEVATOR ANI MUSCLE IN PERINEORRHAPHY OPERATIONS. (*a*)

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THE selection of a subject which is suitable for discussion before this Congress is a matter of some difficulty, since matters which are of the highest interest and importance to the gynæcological surgeon are not so necessarily to the general surgeon. At the same time, it is more likely that a specialist will be of interest to his hearers if he deals with a subject which for the moment is of interest to himself, and so I have selected an essentially gynæcological subject.

There are other reasons why I have selected this particular gynæcological subject. In the first place, although it is a generally accepted fact that the support furnished by the levator ani muscle, either with or without its investing fascia, is essential to the pelvic organs, none of the older methods of perineorrhaphy provides a means of such suture. In the second place, it is surprising how many of the present generation of gynæcologists are content to continue to practise these operations, because, and this is my third reason for my choice of subject, they consider, and in fact they are directly told that suture of the muscle, however essential it may be, is a difficult operation, and one not devoid of danger. I do not think that I need spend much time in defending my first reason. Lawson Tait's, Martin's, Hegar's, and Kelly's original operations all neglect to take the levator ani muscle into consideration. It is true that occasionally they may result in causing its suture, but this only occurs when the muscle is not far retracted, while when it is retracted, and when its suture is more imperative, they fail. As to my second reason, any gynæcologist present can say whether or not it is right, as well as I, and he can say whether my third reason is not also right, and whether the omission to suture the muscle is not the result of the idea that such suture is difficult.

Döderlein and Krönig, in the latest edition of their work on gynæcological operations, and Martin of Bumm's Klinic, in an article on the suture of the levator ani muscle and fascia, are largely responsible for perpetuating this idea. They, however, are apparently strong advocates of suture, and it seems a pity that their writings should rather tend to complicate the operation, and so to prevent its universal adoption.

I have practised systematic suture of the levator ani muscle for the past six or seven years, and I think I may say that I have sutured the muscle in every case in which I have performed perineorrhaphy during this period except where the muscle was absent or atrophied, but when I stated this fact at a discussion on the subject, I was told that I never sutured it. The reasons given for this statement were first, that Krönig showed how easy it was to mistake a more superficial muscle for the levator ani, and secondly, that Martin said that suture of the levator was a difficult operation involving an extensive dissection, whereas my operation was a simple and easy one. It is just because it is simple and easy that I take up the time of the Society with this paper, in which I desire to show, first, that there are no anatomical difficulties in the way of muscle suture, and secondly, that there are no practical difficulties.

The structures which are involved in a perineorrhaphy operation from without inwards are as follows:

(1) Skin.

(2) Superficial fascia.

(3) The constrictor vaginæ muscles, and the superficial transversus perinei muscle.

(4) The deep transversus perinei muscle.

(5) The levator ani muscle.

(6) The vaginal mucous membrane.

We may at once dismiss a number of these structures from consideration because their suture is a part of any perineorrhaphy operation that has ever been devised. These are the skin and superficial fascia, the constrictor vaginæ and superficial transversus perinei muscle, and the vaginal mucous membrane. This leaves two muscles for consideration—the deep transversus perinei and the levator ani. The deep transversus perinei muscle rises from the neighbourhood of the point of union of the pubic and ischial rami. As it approaches the middle line, it spreads out. A few of the most anterior fibres pass to the anterior wall of the vagina, and lie behind the urethra. The remaining fibres pass behind the vagina to the central point of the perineum (Thompson). A great deal of importance has been attached to this muscle by Krönig, who apparently considers it is a structure which is sufficiently long both to afford support in cases of slight prolapse, and to be mistaken for the levator ani. In his description of perineorrhaphy as performed in cases of slight prolapse, he says that after the initial incision the fibres of the deep transversus can be seen, and their course demonstrated by traction. They lie over the pubo-rectal part of the levator muscle, and have often been mistaken for the latter. "To prevent this mistake the diverging muscle bundles should be followed to the sides, the deep transversus perinei passes towards the ischial tuberosity, while the levator ani passes forwards towards the pubis." He then goes on to show how this muscle can be sutured. (Slides).

There are two points raised here with which I must deal at once. The first is that Krönig regards the deep transversus perinei as a structure which can not only be easily found, but which is strong enough to be used to reconstitute the pelvic floor. I should hesitate to say in the face of so eminent an authority that I did not regard either of these statements as correct, even though anatomists and one's own personal experience showed that they are incorrect, was it not that on an earlier page of the same article, Krönig himself places the importance of the deep transversus perinei before us in a true light. Here Krönig definitely states that the deep transversus perinei in nulliparæ is as thick as the little finger, while in multiparæ, and those with poorly developed muscles, it is reduced to mere strands of muscle fibre. It is thus apparently possible that when one comes to perform a perineorrhaphy in the muscular nullipara, one may be able to find and to derive help from the deep transversus perinei!

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* Paper read before the Clinical Congress of Surgeons of North America, in London, July 28th, 1914.

My second point concerns the anatomy of the muscle, and that there is something radically wrong in Krönig's statements about it is shown by comparing his anatomical drawing of the deep transversus perinei with his drawing of the same muscle as exposed during operation. (Slides). It is difficult to conceive how a muscle possessing the anatomical relations shown in the first drawing could come into the position in which it is seen in the others. As I have said, I hesitate to express an opinion contrary to such an eminent authority, but still I cannot help pointing out that I think the fibres which in his drawings of perineorrhaphy purport to represent the deep transversus perinei, really represent some bundles which have been accidentally isolated from the lower and inner edge of the levator ani. Martin puts the case very well when he says, "It is anatomically scarcely possible that Krönig could see the deep transversus passing out from the pubis to the walls of the vagina, when operating on cases with marked atrophy of the muscles." I think, then, that Krönig's drawings lay a quite unnecessary and a most perplexing stress on the possibility of confusing the two muscles.

The part of the levator ani with which the gynæcologist is concerned rises from the back of the body of the pubis, along an oblique line which extends from the lowest limit of the symphysis upwards and outwards to the obturator canal, and also from the obturator fascia for a limited extent (Thompson). It passes backwards at the side of the vagina, about half an inch above the hymen, and then similarly at the side of the rectum to be inserted mainly into a median raphé between the anus and the tip of the coccyx. It has also apparently a slight insertion into the vaginal and rectal walls at the point at which it crosses the latter, and it sends a few fibres to meet those of its fellow of the opposite side in the central point of the perineum. It has not, however, any considerable insertion into the perineum, and the union of its fibres which are produced in this region by operation is purely artificial, and in no way a reproduction of the condition of affairs existing before laceration occurred. If the finger is passed high into the vagina of a nullipara, and then drawn down along one lateral wall exerting a slight outward pressure, it comes to rest on the upper surface of the muscle, the extent and relations of which can be readily ascertained. It will also be obvious that the main masses of the muscle pass backwards at each side of the perineal body with a distinct separation between them. If a similar examination is made in a case of fairly extensive perineal laceration, the lateral masses of the muscle will still be felt, but the gap between them will be greatly increased, in consequence of their outward retraction. Further, if a similar examination is made in the case of a patient in whom suture of the muscle has been carried out, the upper border of the lateral masses will be obvious, and so will the fact that they actually meet one another in the middle line throughout the whole antero-posterior depth of the perineum. Lastly, if the muscle is exposed from below by the method which will be described later, and if it is caught in a forceps and drawn down, the finger in the vagina readily proves that the forceps is holding the muscle which forms the pelvic floor and no other. For this reason I have no hesitation in saying that it is impossible for anyone who has become at all familiar with the details of the operation to mistake the muscle for any other structure in the pelvic floor.

Just as the possibility of mistaking a practically non-existent structure for the levator ani has been exaggerated, so has the difficulty of the operation and the extent of the dissection required. I cannot understand this latter exaggeration, but, to show that it exists, I quote a sentence from an article by Martin of Bumm's Klinic, in which he describes an operation that appears to have very few points of difference from the one I habitually practise. Martin writes:—"If the fibres of the levator ani are to be brought into view, the connection between the pelvic fascia and the superficial diaphragmatic fascia must be divided. This, however, means a very deep dissection, and causes hæmorrhage if a broad strip of the pubo-rectalis is laid bare, because one is working in the neighbourhood of the recto-vaginal venous plexus. When the muscle is approximated, the needle frequently pierces this plexus, and so causes emboli as Bumm has described."

I have criticised adversely from the standpoint of my own experience both Krönig's and Martin's efforts to attach difficulty and danger to the routine suture of the levator ani. There is, however, one disadvantage of a slight character to which they both allude, and which I think requires attention. I refer to the fact that the exposure of the muscle and its separate suture leads to the formation of dead spaces between the vaginal mucous membrane and the upper surface of the muscle. If these spaces are allowed to remain in a condition in which blood can accumulate in them, infection of the clot from the rectum is very liable to occur, and to convert the hæmatoma into an abscess. There is, however, a very simple and essential method which I shall presently describe, of obliterating such spaces, and so of preventing the accumulation of blood in them.

Before describing the operation which I have evolved for myself, and which I habitually practise, I would like to say that I do not claim anything original for it, and that so far as I can see, identical principles of operation must have been adopted by many others. It is only because so many gynæcologists seem to consider that routine muscle suture in the course of a perineorrhaphy is difficult and hesitate to perform it on this account, that I describe my own *technique* which I have followed practically unchanged for the last six years. I cannot give the total number of cases on which my assistants or myself have operated, but during the last three and a half years, 346 perineorrhaphies for chronic laceration have been performed at the Rotunda Hospital, in practically every one of which the levator ani has been sutured. In an occasional case, union has failed to occur, in an occasional case—particularly in the early ones—a hæmatoma has formed, but there has never been a death, or even a patient whose condition gave rise to anxiety owing to the occurrence of emboli from punctured venous plexuses.

I should also like to say, in case the slides of the operation appear familiar to some of you, that the drawings from which they were made were made just two and a half years ago for me from my operations, and that I take no responsibility for their resemblance to any other illustrations which have been drawn and have appeared since. Within the last two months I have had certain anatomical details in them slightly altered, as the levator muscle was placed at too superficial a level.

The essential features of the operation are as follows:—

(1) The careful dissection of the necessary amount of vaginal mucous membrane of the rectum.

(2) The exposure and suture of the separated levator ani muscles.

(3) The careful approximation of the cut edges of the vaginal mucuous membrane, in such a manner as to leave no projection or redundancy.

The operation is carried out as follows: The extent of the perineal tear is carefully determined, and its anterior edges are marked out by bullet forceps as shown. A third bullet forceps is applied to the perineal skin just behind the posterior edge of the tear. The position of the separated edges of the levator ani is by palpation through the mucous membrane of the vagina. An incision is then made from side to side along the line of junction of the skin and the vaginal mucous membrane. This incision cuts through the skin and any underlying scar tissue. A flap of vaginal wall is then dissected up off the under-lying rectum. At its lowest part it is firmly held to the rectum and the sphincter ani by cicatricial bands, the result of the old cicatricial healing. As soon, however, as these have been cut through, the separation of the remainder of the flap by blunt dissection is an easy matter. The easiest method of dividing these bands with the scissors so as to avoid injuring the rectal wall is shown. When the dissection of the flap is complete, a triangular space is exposed, which is bounded laterally below by the remains of the superficial vaginal and perineal muscles, and at a deeper level by the pubo-coccygeal fibres of the levator ani muscle while its floor is formed by the rectum. It is then an easy matter to catch the edges of the levator with clip forceps or dissecting forceps, and to draw them downwards and inwards until they meet in the middle line. If the separation and atrophy of the muscle is marked, then it may not be possible to draw the edges down sufficiently, but, in the great majority of cases, they can be brought into view as shown. Three or four interrupted sutures of catgut are then passed through them from side to side so that when tied they will approximate them in the middle line; for the present, however, they are left untied. The next step is to trim the vaginal flap into proper shape, so that, when the operation is complete, there may be no redundancy. The usual line of incision is shown, and the effect of the removal of redundant tissue. The cut edges of the flap are then brought together by a continuous catgut suture passed from above downwards, and ending at the vulvar orifice. This being done, the catgut sutures in the levator muscle may be tied. The last step consists in the introduction of silkworm gut sutures passed so as to close the skin edges of the perineal wound. These sutures are passed from side to side, and traverse the skin, and the remains of the superficial perineal muscles and also the levator muscle so as to supplement the buried catgut sutures. The method of inserting them will be clearly seen in the illustration.

Sometimes during this procedure there may be hæmorrhage from the hæmorrhoidal vessels. Any bleeding vessel, if of large size, should be caught and tied, but, as a rule, the best method of stopping bleeding is by proceeding rapidly with the operation.

I have mentioned the tendency there is to the formation of dead spaces between the vaginal mucous membrane and the upper surface of the levator ani, as a result of the necessary stripping up of the vaginal flap and the separation of the edges of the muscle from the sides of the vagina. The final step of the operation is directed towards the prevention of the accumulation of blood in such spaces, and is, in my opinion, an essential precaution. It consists in the firm plugging of the vagina with iodoform gauze. The plug must be applied most carefully, so as to avoid injury to the vaginal sutures, and in such a manner that it lies wholly above the muscle with the exception of the end which hangs out through the vulvar opening. It is quite impossible to introduce it satisfactorily by merely pushing it upwards through the narrowed orifice. The reconstituted perineum must be drawn carefully backwards by means of a narrow retractor passed into the vagina, so as to lie above the levator muscle. The retractor which I use for the purpose is known as Doyen's anterior vaginal retractor, and is made by Collin of Paris. Though intended as an anterior retractor, it possesses a blade which is set at just the correct angle to the handle to allow it to pull back the posterior vaginal wall and the muscle in the manner required for the insertion of the plug. By means of it it is possible to introduce a strip of gauze about three inches wide and some five to six yards in length in such a manner that, while the gauze expands the upper part of the vagina and keeps the posterior vaginal wall in close contact with the sutured muscle, it throws little or no strain on the sutured mucous membrane which lies below it.

I have described this step in detail because I attach very great importance to it, and because it is impossible to carry it out satisfactorily without a suitable appliance such as the retractor I mention.

The advantages of the foregoing operation are its ease and its rapidity. In an ordinary uncomplicated case it can be finished in less than ten minutes, and it very rarely takes more than fifteen minutes. The advantages of positive suture of the levator ani in perineorrhaphy operations are so obvious that they do not require to be mentioned, but to emphasise them I show four diagrams, which I constructed with fair accuracy from two cases of perineorrhaphy. The first pair of these show the condition of the perineum and the relations of the rectum and the vagina in a patient on whom one or other of the older perineorrhaphy operations had been performed. The external result was apparently excellent, but on passing the finger into the vagina, the perineum was found to consist of a thin shelf formed of skin and superficial fascia. A little further examination showed that the lateral masses of the levator ani muscle, well developed but widely separated, lay in the position into which they had retracted as a result of the original laceration. The second pair of diagrams show the same points in a patient in whom the muscles had been sutured and the operation carried out as I have described. The difference in the condition of the perineal body is at once obvious, and further examination showed that the lateral masses of the levator met in the middle line. In fact, the shape of the perineum is practically that found in the nullipara, and the only difference is that the inner muscle edges meet in the middle line instead of merely sending a few fibres into the central tendon of the perineum.

I should like to sum up my conclusions briefly:—

(1) Routine suture of the levator ani is an essential part of perineorrhaphy.

(2) Routine suture is always practicable, except when the muscle is wanting owing to atrophy after injury. Such absence is very rare, and, when it occurs, it is impossible to reconstitute the perineum satisfactorily.

(3) The exposure and suture of the levator ani is neither difficult nor dangerous.

THE RELATIONS OF CHEMISTRY TO MEDICINE. (*a*)

By ARCHIBALD E. GARROD, M.A., M.D., F.R.C.P., F.R.S.,
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So complex is modern medicine, and so diverse are its aspects, that we cannot hope to attain to any comprehensive notion thereof if we regard it from any single point of view. We need to adopt, on the one hand, the standpoint of the human organism engaged in its unceasing struggle to ward off the assaults of disease, and, on the other hand, that of the agents of disease which are as incessantly striving to gain a foothold. The clinical worker whose task it is to diagnose the nature and seat of the malady, and to intervene in the interests of the patient, has *his* special outlook; and the pathologist, who studies the havoc worked by disease, has *his*. Again, we may contemplate the human organism as a whole, or as a complex structure built up of diverse organs and tissues, each with its assigned functions, or once again, as a nation of cell units endowed with manifold activities. Lastly, we have to picture each individual cell as a congeries of chemical molecules which are being continually pieced together and broken down by the agency of intracellular enzymes. Thus physician and physicist, physiologist and pathologist, biologist, bacteriologist, and chemist, each looks out upon the field of medicine from his own standpoint, and to each it wears a different aspect. Only by the combination of the several mental pictures can a stereoscopic presentation be obtained.

Many of the early chemists were practitioners of medicine, and from the days of that eccentric genius who assumed the name of Paracelsus, and of van Helmont, the father of physiological chemistry, down to the earlier years of the nineteenth century, the chemical outlook was that most widely adopted by medical men. But in those earlier days chemistry itself was in far too embryonic a stage to lend much aid to the elucidation of the problems of disease, and, as time went on, the chemical outlook was abondoned to a large extent in favour of that afforded by the rapidly advancing study of morbid anatomy. Throughout the greater part of the last century morbid anatomy and histology held the field unchallenged; and they were justly entitled to do so in view of the progress made in the macroscopic and miscroscopic study of diseased structures, upon which was reared an imposing edifice of cellular pathology.

The Study of Biochemistry.

Biochemistry presents itself under two aspects; a static, which is concerned with the study of chemical structure, and a dynamic, which deals with the chemical changes of which the living tissues are the seats. Thus we may wander among the streets of some deserted city of the past, may study the fabric of its buildings—the stones, bricks, and mortar employed in their construction, and in this way may gain some knowledge of the uses for which the several buildings were designed. Just so the anatomist investigates the structure of the organs of the dead body, and the chemist, by his analyses, gains a minute insight into the molecular groupings of the materials of which its tissues are composed. Even in the dead city all is not still and at rest. The ancient walls are subject to weathering and decay, and gradually crumble under the influence of air and rain. Yet other changes are wrought by lowly forms of animal and vegetable life, which undermine the ruins and, in the end, bring about their downfall. So, too, in the dead body, destructive agencies are constantly at work until the dust returns to its dust again. Once more we may tread the streets of a city of to-day, may watch the movements of the crowds as they pass, the gathering and dispersal of groups of people. We may study the arrangements for the disposal of waste products, the ways in which food supplies are brought in, dealt with, and distributed. Or we may investigate the police arrangements, the sanitary services, and the various devices resorted to by the community for its protection. The study of the human organism on such lines is the province of physiology, and it is to designate the sum total of the manifold chemical processes in action within the living organism, and which constitute its life, that the term "metabolism" is employed.

But the chemical physiologist is far from sharing the opportunities afforded to our wayfarer. He is hardly permitted to set foot within the walls of the living city, and on that account his investigations are carried on under serious disadvantage. Determination of the balance of intake and output affords clear indication of the grosser chemical interchanges in the body, but the study of the intermediate stages is a far more difficult task, and only now are we beginning to gain an insight into the details of metabolism. Such knowledge of these details as we have acquired is largely based upon circumstantial rather than upon direct evidence. But here, as in so many fields, pathology lends valuable aid to physiology, and Nature's experiments and her mistakes afford, to him who is able to read them aright, insight into the methods of her orderly working.

The Role of Enzymes.

It is believed that metabolic changes are wrought by specialised enzymes, many, if not all, of which are capable of reversed action. We may picture to ourselves the individual protein fraction as handed on from enzyme to enzyme, each responsible for some particular step in the series of changes, until the series is completed and the specific protein has been built up, or the final excretory product has been reached. Thus are produced numbers of intermediate products which are subjected to further changes as soon as they come into existence, and which call to mind a moving staircase rather than a flight of steps. Most of these intermediate products are never met with in an examination of the excreta, or only when the further transformations which they naturally undergo are in some way arrested. Regarded from the chemical standpoint, each cell in the body is an individual member of a community, although, in all organisms but the simplest, the various cells are differentiated for the performance of special functions, and to that extent have sacrificed their individuality. Each

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(a) Abstract of the Address in Medicine delivered at the 82nd Annual Meeting of the British Medical Association, held in Aberdeen, July, 1914.

product of glandular activity bears witness to specialised metabolic processes in the cells by which it is produced.

In recent years we have gained some insight into the mechanisms by which regulation is effected, and of the importance in this connection of the internal secretions of glands, ductless and others. We see how disease of a gland which yields such a secretion may disturb the metabolic balance in the direction of excess or defect, and in so doing may influence growth and development. Such studies are profoundly modifying our conceptions of such anomalies as obesity and infantilism, and we are learning that the glands which may be classed together as members of a hormonopoietic system constitute a group of balanced regulators of metabolism, although it may be conceded that, in this connection, theory tends for the moment to outstrip established fact. However, the internal secretions are implements, rather than originators of control. The hormones are themselves but chemical products of certain specialised cells, and the activities of the glands which produce them are themselves under the control of the vegetative nervous system, which transmits to them impulses in response to the chemical demands of the tissues. Thus, in a sense, the regulation of metabolism is automatic.

Protective Mechanisms.

The mechanisms of defence adopted by the body are of various kinds. Some are comparatively simple chemical reactions, as when free acids are neutralised by ammonia diverted from its ordinary path to the formation of urea; or when aromatic poisons are combined up with sulphates, and are excreted in harmless forms. But aromatic poisons are also combined with products of protein or carbohydrate metabolism, with the protein fraction glycin to form the harmless hippuric acid and its allies, or with glycuronic acid to form compound glycuronates. Other mechanisms are far less simple, and the very nature of the protective agents is beyond the ken of the chemist. These are the agents known as antitoxins, agglutinins, precipitins, opsonins, and the like.

Quite recently the researches of Abderhalden have opened up a new field of such studies by revealing the production of protective ferments, capable of destroying protein substances foreign to the organism. It would seem, indeed, that each constituent cell of the body brings into play its enzyme-forming powers to meet an emergency. It is a question of much interest whether or no the various protective mechanisms have been evolved to meet the assaults of those toxic agencies to which the organism is specially exposed, or whether an entirely new mechanism can be devised, at any moment, to meet an unforeseen emergency. Evidence may be adduced in support of either hypothesis. The laws of chemistry are so immutable that, given certain conditions, definite reactions may be expected to occur. We are able to predict the formation of compounds which may never have existed previously, and to foretell their properties with some degree of accuracy. So we might expect that a given poison launched into a medium in which a number of metabolic products are present will combine with one or other of these. But in the human organism the conditions are far less simple than in the laboratory, and we are driven to suppose that enzyme action is concerned in the production of such compounds as hippuric acid or a compound glycuronate; and we may well imagine that, even when the requisite materials are forthcoming, combination may fail for lack of the required enzyme.

Disorders of Metabolism.

Diseases of the alimentary tract cause impairment of the intake of nutritive materials, and changes wrought, by the bacteria which inhabit the intestines, upon the intestinal contents, may result in the formation of poisonous products which undergo absorption, to the great detriment of the organism. When the kidneys are the seats of disease, the elimination of waste products—the hygiene of the tissues—is impaired, to a greater or less extent, and these products accumulate in the organism where they induce a chain of morbid effects which culminate in the stormy symptoms of uræmia.

It is because disease of glands of internal secretion produces such profound disturbance in the chemical field that we have learnt to recognise the important part which they play as regulators of metabolism. We see how functional inactivity of the thyroid gland renders sluggish the metabolic processes as a whole, whereas its over-activity—if that be the correct interpretation of the phenomena of exophthalmic goitre—causes the metabolic fires to burn too brightly. We see also how a too active pituitary gland stimulates the organism to abnormal growth, whereas loss of its functional activity brings in its train obesity and recessive infantilism. Phenomena of a like order result from diseases of the adrenal and pineal glands, and we are only beginning to learn how great a part variations in the secretion of adrenalin by the chromaffin tissues may play in connection with a number of maladies in which the adrenals themselves are not primarily implicated. Indeed, it may be said that all diseases, whether they affect the organism as a whole or whether their brunt be borne by single organs, bring about greater or less disturbance of metabolism. The field of chemical pathology is practically coextensive with the field of medicine. In the case of many maladies, even of the more acute and graver ones, the chemical disturbances which they bring in their train are far less conspicuous than the structural changes. In others, again, the metabolic disorders occupy the fore front of the clinical picture, as is the case in those maladies which we are accustomed to group together under the collective name of "diabetes." It is natural that the attention of chemical workers in medicine has always been directed to such "diseases of metabolism," and the problems which they present are still very far from solution.

The "Deficiency" Diseases.

Hitherto we have been considering what may be described as *positive* diseases, which result from attacks upon the organism by morbific agents introduced from without, but there remains to be considered a group of maladies which may be classed as *negative*, seeing that they have their origin in the withholding of some portion of the supplies which the organism derives from external sources, and upon which its well-being depends. The extreme example of such a disease is starvation—a condition in which the body, being deprived of its food supplies, lives for a time upon its own fats and carbohydrates, and ultimately upon the proteins of its tissues. Minor degrees of the same condition are induced by restriction of the intake below an adequate calorie value of proteins below the amount compatible with maintenance of nitrogen balance or by complete deprivation of carbohydrate foods.

Of much interest are certain maladies which result from dietetic shortcomings of far less obvious kinds—defects which cannot be estimated in terms of calorie value or nitrogen balance. It is becoming evident that a normal dietary must contain constituents of which we have hitherto taken no reckoning, just as the air which we breathe contains gases of the existence of which we had no inkling until recent years. The new study of vitamines and of the effects of a diet consisting of pure proteins, fats, and carbohydrates upon the growth of young animals, is beginning to throw light upon the nature of such factors, exogenous hormones, if I may so style them. That scurvy results from errors of diet has long been known, but the dietetic factor in the causation of beri-beri is of far more recent recognition.

It is not surprising that such diseases of defect, when once recognised as such, are far more readily amenable to treatment than any others. The missing factor supplies the specific remedy. Starvation is readily cured by food, and scurvy by a diet of fresh meat and vegetables, just as myxœdema yields to treatment by thyroid extract; but in all such cases continuous administration of the missing factor is essential for the continuance of well-being.

The Help of Chemistry in Therapeutics.

To turn to the field of therapeutics, there is no branch of treatment in which chemistry should help us more than in dietetics, but there is none in which we rely less upon the guidance of science, and in which the influence of tradition is so powerful. In so far as tradition embodies the accumulated experience of mankind, and of generations of sufferers from particular maladies, it is entitled to our fullest respect, and is sometimes our safest guide. But too often it rests upon the dicta of some teacher of the past, which have been repeated so frequently that they assume an authority to which they have no real claim. I am far from maintaining that our dietetic prescriptions must always have a scientific basis, for our knowledge does not suffice to render this possible. Indeed, in matters of treatment, there is danger in setting up too rigid a standard. A prescription which aims at the attaining of some particular object, although based upon scientific reasoning, may fail because we are not able to take into account all the conditions of the experiment. Not a few therapeutic measures have been introduced in deference to scientific reasoning which has since been shown to be unsound, and some of these—such is the irony of things—have nevertheless proved of real value.

There are scientific grounds for the belief that mankind habitually takes more protein food than is required for the due nutrition of the tissues, and undoubtedly the amount taken habitually exceeds that required for the maintenance of nitrogen balance. As regards details of dietary, I would venture to assert that two-thirds of the restrictions imposed upon sufferers from particular maladies find no real justification in the teachings of science or of experience. How contradictory are the directions given by different advisers to gouty patients as to details of dietary, and how few of them can be justified by argument when called into question!

Modern diagnostic methods enable us to recognise diseases of which our fathers never dreamed, and to detect the more familiar maladies in those early stages in which they are most amenable to control. So long as they are used in conjunction with the older clinical methods, and not merely as short cuts to diagnosis, they prove unqualified boons. Nor can it be questioned that the range of efficient treatment is being extended widely. But let us not forget how much we owe to the work done by our fathers with the less efficient methods at their disposal. We begin where they left off; the harvest which we are reaping they sowed; thanks to their advances we are able to advance yet further. If they knew less than we do, they had one great advantage over us, in that they had more time for thought.

THE SURGEON OF THE FUTURE. (a)

By SIR JOHN BLAND-SUTTON, F.R.C.S.,

Surgeon to the Middlesex Hospital.

The art of surgery is probably as ancient as the art of war, and is practised by warlike savages who have never been influenced by civilisation. The antagonistic callings of the soldier and the surgeon have been markedly modified by the progress of science. It is believed by many that the ingenuity exercised in the invention of methods for destroying life will make war impossible, and the discovery of the causes of diseases and the perfection of preventive medicine will render physicians and surgeons unnecessary. The belief in each instance is futile. Soldiers and surgeons will be required as long as civilisation endures; but their methods have undergone great changes, and greater are impending. Gunpowder revolutionised warfare; the discovery of anæsthetics and the invention of the microscope completely changed surgical methods. The enormous impetus which the discovery of anæsthetics gave to surgery threatened to extinguish it as an art, for post-operative suppuration and pyæmia became endemic plagues in all populous cities where the surgeon plied his craft. The utility of chloroform in the diagnosis of hysterical contractures, phantom tumours and spurious pregnancy was its last merit to be appreciated. The surgery of the viscera is one of the remarkable extensions that followed the introduction of anæsthetics. Abdominal organs such as the spleen and omentum were removed when extruded through accidental rents made by knives, spears, swords, scythes, sickles, cart-wheels, or similar forms of violence, and extruded intestines were returned with success centuries before the discovery of ether and chloroform. Cæsarean section was successfully performed in Roman times, and many a child, to use Shakespeare's phrase, "was from his mother's womb untimely ripp'd." This form of delivery has been effected by midwives and butchers; by a patient on herself, and by the horn of a mad bull; in some instances mother and child survived. The success that followed this inartistic mode of delivery is instructive: forty years ago Cæsarean section had an astounding mortality when performed by surgeons, whilst the spayer and gelder carried out his calling with almost invariable success. Lister unravelled the riddle. To-day wounds made and closed in the course of a surgical operation unite with a certainty that ceases to attract attention. Surgeons rarely pause to think on what would happen if surgical wounds failed to heal. In the pioneer days of abdominal surgery the incisions often failed to unite, and such patients frequently died. I shall later on place facts before you to show that failure of intestinal wounds to unite is one cause of the high mortality following operations for cancer of the colon. Union of healthy intestine takes place quickly and perfectly.

(a) Abstract of Address in Surgery delivered at the Annual Meeting of the British Medical Association, held at Aberdeen, July, 1914.

SURGERY AND THE MICROSCOPE.

It is usual to ascribe the remarkable progress of surgery to the discovery of anæsthesia and that perfection of methods designed to prevent wound infection, but we must not forget that most important was the invention of the microscope; without its assistance the minutes bodies which effect such great changes in organic and inorganic nature, and cause so many varieties of infective disease in animals and plants, would have remained not only hidden but unsuspected. This important instrument of research, perfected by earnest workers mocked at as "brass and glass men," is now indispensable in clinical research. Every improvement in the construction of the microscope has led to an increase in knowledge of the cause of disease. It has also become a means of popular instruction and amusement. Even embryologic processes are displayed to interested pleasure seekers on cinematographic films in "picture palaces" and school children are instructed in physiology, including the microscopic features of the blood. Derangements of the functions of blood-forming organs, especially red marrow, and the significance of an excessive production of leucocytes has come to be so thoroughly appreciated by surgeons that under certain conditions an excessive proportion of white corpuscles in the blood is a more emphatic bar to a surgical operation than sugar in the urine. It is in this direction that the increase of pathological knowledge, especially the form of it called clinical pathology, will influence operative surgery in the future. The light microscopic studies of the blood throw on leucæmia acts as a danger signal to the surgeon when contemplating the removal of an enlarged spleen. The extirpation of a leucæmic spleen is always followed by death, and this experience is crystallised in practice, for an abdominal tumour resembling a spleen always suggests a blood count.

THE CEREBRO-SPINAL FLUID IN SURGERY.

Fifty years ago our knowledge regarding the physical condition of the brain and spinal cord was of an elementary kind. It was the custom to teach that the cerebo-spinal fluid served as a waterbed for the brain in order to preserve it from harmful concussions. In my student days this teleological explanation tickled my fancy, and I suggested to the lecturer on anatomy when he waxed enthusiastic, after the style of Hilton, on this wise precaution of nature, that the explanation was absurd, for the relative bulk of brain and cerebro-spinal fluid resembled an ironclad in a duck pond. Now cerebro-spinal fluid is used as a medium for inducing temporary paraplegic analgesia—a method of conscious anæsthesia of great advantage to the surgeon when he is called upon to operate in conditions where a general anæsthetic would be attended with unusual risks. The diagnostic importance of cerebro-spinal fluid obtained by lumbar puncture is not only great but its utility is increasing. Examination of samples of the cerebro-spinal fluid obtained by tapping the spinal theca is a routine in diagnosis.

In discussing influenzal meningitis, Flexner tells us that the fluid secreted by the choroid plexuses in infected monkeys contains an antiserum which escapes by the meningeal veins, and it may become possible to arrest the development of bacilli in the blood by means of compounds injected into the cerebro-spinal fluid. Here is a method of specific therapy unsuspected in our wildest dreams: Science transforming the cerebro-spinal fluid into a pool of Bethesda! Enterprising surgeons are now devising methods by which they "trouble" the pool to the best advantage. The brilliant demonstrations that spirochætes use the lymphatics of nerves as avenues for invading the spinal cord will modify the treatment of syphilitic diseases of the cord. Intrathecal injections of salvarsan, in common with all arsenical compounds, irritate the spinal cord. To overcome this difficulty salvarsanised serum obtained from the patient is injected into his cerebro-spinal fluid and tolerated. This is a good example of practical ingenuity. The results of surgical enterprise on cerebral tumours are unsatisfactory; the mortality is great and the condition of the survivors in many instances sad. The indefiniteness of gliomatous formations makes them extremely unfavourable for operation, to say nothing of the difficulty in localising cerebral tumours in non-motor areas. It is probable that compounds will be discovered that can be injected into the cerebro-spinal fluid and cause gliomas to shrivel in the same way that gummas disappear under potassium iodide, mercury, or salvarsan, and thus abolish some of the most uncompromising operations of modern surgery.

THE SURGERY OF MALIGNANT GROWTHS.

Investigations of the minute structure of morbid growths have been mainly useful in separating the so-called benign tumours from those which inevitably destroy life. Thirty years ago the two groups were regarded as distinct. It is true that type forms can be distinguished as innocent or malignant, but each genus of the so-called innocent group, with the exception of lipomas, contains species in which the histological features of innocency shade away into those indicating malignancy. This is a matter of great importance when a declaration of malignancy entails the sacrifice of an organ or a limb. The horror patients entertain of malignant disease, and the stigma they think it imprints on the family reputation leads to willing submission when the surgeon offers operative treatment. It is an impression deeply ingrained in the profession that the presence of malignant disease justifies an operation, however extensive or dangerous, for its relief. Let us satisfy ourselves that surgical gambling with malignant disease is justified. There are two organs in the body often the seat of cancer and often attacked by surgeons—the uterus and colon, in connection with which this question may be fairly considered.

The results of removal of the uterus for cancer in its neck are by no means uniform even when the conditions are apparently similar. The microscopic features of cancerous growths do not help in explaining variations in the clinical course of the disease. There are intrinsic and extrinsic factors concerned in estimating the malignancy of uterine cancer which have only recently been appreciated. Our predecessors in the art of surgery recognised a remarkable alteration in the appearance of patients the subjects of advanced malignant disease, which they expressed by the phrase cancerous cachexia. This "bad habit" of body has no special relation to cancer; it is due to the entrance into the circulating blood of toxic substances secreted by the bacteria and cocci which colonise cancerous growths in exposed situations. The relation of bacteria to cancer is a matter of first-rate importance to the surgeon, and influences his work very markedly. I find, as a rule, that non-ulcerating cancers of the breast are sterile. Cancer of the tongue usually swarms with streptococci, and the neck of a uterus when cancerous is colonised by staphylococci, or streptococci, and the *Coli* group. This led me to make bacteriological investigations of the necks of cancerous uteri before undertaking their removal; I quickly found that the fate of a patient submitted to operation for this disease depends not so much on the skill of the surgeon as on the nature of the infecting micro-organism. Many patients submitted to hysterectomy for cancer of the neck of the uterus die within a few days of the operation from septic peritonitis, pulmonary embolism, or acute bacteriæmia if the cancerous tissues are colonised by streptococci.

Cancer of the Colon and Sepsis.

The relationship of sepsis and cancer is an important matter for the surgeon. During the last ten years there has been great activity in developing radical measures for the treatment of cancer of the large intestine. The results are not gratifying. Resections of the cæcum, or portions of the colon, are attended with a high rate of mortality, and of those who survive operation early recurrence or dissemination is the rule. Surgeons know this, and in order to improve the results of operative treatment painstaking investigations have been made on the distribution of the blood and lymph vessels of the colon. In spite of much admirable work and surgical enterprise, cancer of the large intestine is as opprobrious to the surgeon as hysterectomy for cancer of the neck of the uterus to the gynæcologist, and for the same reason—sepsis.

The radical method of dealing with cancer of the colon consists in free resection of the cancerous portion in favourable cases; this requires a complicated operation for the reunion of the bowel, entailing a sutural junction that must be not only watertight but gastight. One of the first requisites for immediate union is the absence of pyogenic bacteria. In operations for intestinal anastomosis, success depends on early and firm union of the apposed surfaces of the bowel. When cancer becomes septic, it sloughs and bleeds. Infected cancer impairs the patient's health, because the toxins brewed by the schizomycetes colonising it enter the circulation. Colic cancer sometimes leads to abscess when it is infected by the *Coli* group. The frequency with which visceral cancer mimics inflammatory conditions and misleads physicians and surgeons alike is due to sepsis. The appreciation of the causes of failure in the surgical treatment of colic cancer should exercise some influence for good. It is by no means uncommon to see surgeons clad in sterilised overalls, gloves, caps, masks, and top boots resecting a cancerous segment of colon swarming with pyogenic micro-organisms. This can only be described as surgical coquetry. Some of our methods for destroying bacteria in the course of an operation are almost as clumsy as attempts to kill fleas with bludgeons.

The Surgeon of the Future.

In pre-Listerian days the path to surgery lay through the dissecting-room. A thorough practical knowledge of the anatomy of man was and is indispensable to a sound surgeon. Many surgeons whose names are prominent in the history of surgery—from John Hunter to Fergusson—taught anatomy by dissection. Surgeons no longer act as demonstrators of anatomy or conduct *post-mortem* examinations; the principles of antiseptic surgery forbid such occupations. The practical training in the dissecting-room and *post-mortem* room teaches men something they cannot learn from books—the appreciation of tissue; this means, in plain terms, the power to recognise organs and tissues, normal and abnormal, at sight or by touch in the course of an operation.

Surgeons are of two types, they are either craftsmen or biologists. The surgical craftsman invents variations in *technique;* metal plates, wires and screws for bones; or fancy methods of suturing wounds. Some expend their ingenuity on surgical cutlery and improve the knives and needles. The utility of a simple tool such as the clip forceps is inestimable. In spite of much ingenuity among surgeons, an ideal ligature material awaits discovery. Clever contrivances like the laryngoscope, bronchoscope and cystoscope have revolutionised special branches of surgery. Another useful instrument, the œsophagoscope, requires for its successful use a surgeon with the instincts of the sword-swallower and the eye of a hawk. Recently through the kindness of my colleague, Alfred Johnson, I witnessed through the cystoscope a stone slowly extruded from the vesical orifice of the ureter.

The biological surgeon studies pathology in its broadest aspect, and investigates, in the laboratory, problems of morbid anatomy and bacteriology. The diagnostic value of reports issued from the laboratory by the pathologist and the bacteriologist, to be of value, must be estimated with the help of clinical experience. If the surgeon has had no experience in bacteriological methods he must accept the reports from the laboratory with the hopefulness of a patient swallowing physic compounded from a prescription he does not understand and which he is often unable to read.

The skill, ability and dexterity with which surgeons remove a kidney, the uterus, or perform extensive resection of the intestine, great and small, can be witnessed almost daily in the splendid hospitals of large cities, but surgical effort is handicapped by streptococci and the coli group, which are very resistant to chemiotherapy. There is something fascinating in submitting septic morbid growths to what Ehrlich picturesquely terms a "bacteriological siege." The magical effects of salvarsan on the lesions of syphilis, acute and chronic, lead us to hope that this compound will assist in the elimination of cancer of the mouth and tongue, for in these situations cancer is often engrafted on chronic syphilitic lesions. It is reasonable to believe that within a few years surgeons will notice a marked decrease in the number of men with cancer of the lips, gum, tongue, and pharynx, and of women with cancer of the vulva. The extinction of these forms of cancer will relieve surgeons of some of the most distressing and unsatisfactory operations they are called upon to perform.

In regard to the cure of malignant disease, there is most hope in chemiotherapy. In detecting the cause of cancer histology has proved a false dawn, but, like that peculiar light which precedes the dawn in the tropics, it is very fascinating. Who can tell how long we shall have to wait for the real dawn! We need not despair; the zeal, enthusiasm and acumen of laboratory workers fills us with the hope that the ideal of all practitioners of medicine and surgery is attainable—the control of all forms of infective disease.

OPERATING THEATRES.

ROYAL FREE HOSPITAL.

Ventral Hernia.—Mr. Willmott Evans operated on a girl æt. 20, who had a ventral hernia. The history was that three years ago she suffered from appendicitis, for which she had had an operation at another hospital. An abscess had been present, for which drainage was employed. When the wound had healed a hernia was present. For relief of this condition she had had two operations, but neither had resulted in a cure. On admission at a point about an inch and a half external to the outer margin of the right rectus was an area about three inches by one and a half where palpation showed that the greater part of the abdominal wall was absent. When the patient coughed a prominence appeared at this part.

The patient having been anæsthetised, an incision was made about three inches long along the outer border of the hernia; the peritoneal cavity was opened and it was then found that the cæcum was adherent to the skin over the greater part of the hernia. With great care the bowel was separated from the attached skin; it was then returned into the abdomen and the scar of the skin was excised. The peritoneum was then united by a continuous silk stitch and then the insular planes were united in turn, in each case some overlapping being produced. Especial care was taken to overlap that portion of the external oblique and its fascia which was in the wound. The skin was united with silk and the wound was dressed.

Mr. Evans said that although a ventral hernia might result from a blow not damaging the skin, but weakening the abdominal wall by the rupture of some muscular fibres, yet in the majority of cases it was the result of a wound of the abdominal wall, either intentional as in an operation, or accidental. The great increase during the last twenty years in operations for appendicitis has unfortunately resulted in an increase in the number of ventral hernias. The operation for appendicitis is especially likely to leave behind it a weakness of the abdominal wall if long lasting drainage has been employed; but even when drainage has been used a ventral hernia would appear in only a small proportion of the cases. A ventral hernia is almost unknown in cases in which the Battle incision has been used for the rectus muscle offers great resistance to the stretching of the scar. It is not at all uncommon to find some structure adherent to the hernia. This may be omentum or intestine, and the separation of adherent intestine requires to be done with great care; sometimes it is advisable to cover the bare patch in the wall of the bowel with a piece of omentum in order to prevent further adhesions forming. Overlapping of the different layers of the abdominal wall at the site of the hernia is of great value in preventing recurrence, and it is sometimes necessary to employ a filigree or a fascial transplant in cases where the abdominal wall is naturally weak or atrophic. The after treatment is not without importance; it is essential that no undue strain should be thrown on the abdominal wall until the tissues have become consolidated; therefore, when the bandages are discarded they must be replaced by an abdominal belt which should be worn for at least six months, or better, for a year after the operation. He thought it was hardly necessary to state that there was an essential difference between ventral hernia and umbilical hernia, especially as regards the treatment, but the same principle obtained that the layers of the anterior abdominal wall must overlap.

As to the subsequent history, the wound healed by first intention, and the patient was able to leave the hospital a fortnight after the operation wearing an abdominal belt, and when heard of some months later, no recurrence had taken place.

Six medical men, comprising the voluntary staff at the Barry Accident Hospital, have decided to tender their resignations to the District Council, and have given one month's notice. The determining cause of this action was the engagement of a surgeon at £600 a year.

SPECIAL REPORTS.

THE EIGHTY-SECOND ANNUAL MEETING OF THE BRITISH MEDICAL ASSOCIATION, HELD AT ABERDEEN, 1914.

(By Our Special Representative.)

Second Article.

Greeted with such a "Bon-accord" welcome as only Aberdonians know how to give, the members of the Association have every reason to recollect their visit to "The Granite City" with pleasurably feelings. The weather, if not brilliant, was kind, and the cool northerly breezes provided an invigorating tonic which was most acceptable to jaded members from the south. All the arrangements for the entertainment of visitors, and especially of the ladies, were excellently carried out, and much praise is due to the energy and forethought of Dr. T. Fraser, the Hon. Local Secretary, and to the various local committees for combining to render the 1914 meeting one of exceptional interest.

At the annual general meeting on the Tuesday afternoon, Sir Thomas Clifford Allbutt, K.C.B., M.A., F.R.S., Regius Professor of Medicine in the University of Cambridge, was introduced, and it was announced that the meeting in 1915 would be held in Cambridge.

It has been decided to establish a central Scottish office for the Association with a whole-time medical secretary, and upon a vote being taken at the representative meeting, Edinburgh was selected as the centre for this office.

Religious Services.

This year there were no less than three services arranged for the Association, the principal one of which, however, was that held at the West Parish Church of St. Nicholas (Church of Scotland), Aberdeen, at 9 a.m. on the Wednesday morning. Those attending this service robed in the Marischal College and walked in procession down Broad Street and Union Street to the church, headed by Lord Provost Maitland, Baillie Taggart, and Baillie Duncan, and members of the Town Council. The service was conducted by the Rev. G. H. Donald, Minister of the Church, and the lessons were read by Drs. John Gordon and Thomas Fraser. Selecting for his text St. Luke xxii., 27, "I am among you as He that serveth." the Rt. Rev. Professor Nicol, D.D., Moderator of the Church of Scotland, dealt with the example, mission, and the motive of service, and he referred to the large amount of unselfish and unremunerative service rendered by the medical profession, the members of whom, in coming into close quarters with sleeping sickness or plague, counted not their lives dear unto them if only they might contribute to the extirpation of the deadly enemy and snatch the prey from the hands of the scourge.

A service was also held in the Episcopal Cathedral Church of St. Andrew, when the sermon was preached by the Rt. Rev. Dr. Anthony Mitchell, Bishop of Aberdeen and Orkney, from Rev. xxii., 2, "And the leaves of the tree were for the healing of the nations." He referred to the healing influences which proceeded impalpably from the highest self of the physician whose work called forth the finest qualities of the human character.

The service for Roman Catholic members was held in St. Mary's Cathedral. After Mass was celebrated, the Rt. Rev. Mgr. Meany, the Administrator of the Cathedral, preached the sermon from Ecclesiasticus xxxviii., 5, "The Most High hath given knowledge to men that He may be honoured in His wonders." He said that Aberdeen was proud to acknowledge the debt she owed to the illustrious Bishop Elphinstone, who established in their city the first chair of medicine in this country.

The President's Address.

The Music Hall in Union Street was crowded on Tuesday evening to hear the President's address. The proceedings were opened by Lord Provost Maitland, who welcomed the Association officially to Aberdeen.

After the foreign and colonial delegates had been received, gold medals of merit were presented to Mr. T. Jenner Verrall, Chairman of the Representative Meeting, and to Dr. Edwin Rayner, Treasurer of the Association. Sir Alexander Ogston then delivered his presidential address on "The History of the Medical School of Aberdeen," full of interesting historical allusions, an abstract of which will be given in our columns next week.

The Address in Medicine.

The Mitchell Hall, Marischal College, was well filled on Thursday morning to hear the address in Medicine, delivered by Dr. Archibald E. Garrod, M.D., F.R.C.P., F.R.S., Physician to St. Bartholomew's Hospital, who chose for his subject some phases in the history of medical science and art. He traced the growth of pathology, bacteriology and chemistry in its medical aspects and showed their practical bearing upon modern dietetic therapeutics. An abstract of the address appears elsewhere in our columns (p. 147).

The Address in Surgery.

This was delivered in the Marischal College on Friday at Mid-day by Sir John Bland-Sutton, F.R.C.S., surgeon to the Middlesex Hospital, who, in dealing with "The Surgeon of the Future," spoke of "surgical gambling with malignant disease," and referred to the prevalent impression that the presence of a cancerous growth in any situation requires an operation. He thought that the relationship between sepsis and cancer was an important matter for the surgeon. In regard to the cure of malignant disease he considered that the greatest hope lay in chemio-therapy. Sir John Bland-Sutton made his audience laugh when he said that the surgeon who used the œsophagoscope required for its successful use "the instincts of the sword swallower and the eye of a hawk." A full abstract of this most suggestive address appears on p. 149.

The Annual Dinner.

On the Thursday night, as is customary, the annual dinner of the Association was held in the Music Hall, Union Street. The company, which numbered some 400 ladies and gentlemen, included the following guests of the President and members of the Association:—Lord Provost Maitland; the Principal of the University, Rev. G. A. Smith, D.D., LL.D.; the Right Rev. Professor Nicol, Moderator of the Church of Scotland; the Right Rev. Æneas Chisholm, Bishop of Aberdeen; the Right Rev. Anthony Mitchell, Bishop of Aberdeen and Orkney; Rev. G. H. Donald, West Parish Church; Mr. J. E. Crombie, LL.D., Parkhill; Sir John Fleming, LL.D.; Mr. Irving, of Drum; Mr. Harvey Hall, President of the Society of Advocates; Colonel Douglas Duncan, Secretary of the Society of Advocates; Mr. Duffus, Chairman of Directors, Aberdeen Royal Infirmary; Mr. Ledingham, Chairman of the Royal Asylum Board; Mr. John Michie, H.M. Commissioner, Balmoral; Dr. J. A. Macdonald, Chairman of Council, B.M.A.; Mr. Edwin Rayner, Treasurer, B.M.A.; Mr. T. Jenner Verrall, Chairman of Representative Meetings, B.M.A.; Dr. A. Cox, Medical Secretary, B.M.A.; and Mr. Guy Elliston, Financial Secretary, B.M.A.

After the loyal toasts had been duly honoured, Mr. T. J. Verrall proposed "The City and University of Aberdeen." Speaking of the advantages of its university degrees, he said that those who knew best the Aberdonian born and bred must conclude that into his composition must have entered a considerable proportion of the far-famed local building material—polished granite. (Applause and laughter.)

Lord Provost Maitland and Professor G. Adam Smith having replied for the City and University respectively, the toast of "The British Medical Association" was submitted by the Right Rev. Anthony Mitchell, Bishop of Aberdeen and Orkney. He said that the citizens of Aberdeen had felt it an honour that the Association should have selected their city for a meeting place. He thought that the Association seemed to be a body peculiarly fitted not only to advance the efficiency of the medical profession, but also to conserve and improve its status. Whatever might be the future of the medical profession, the general public would deplore anything that tended to lessen the high status of the profession as it existed to-day. It would be a loss to humanity at large if the profession ceased to attract to itself the best men who were produced in the universities throughout the world. (Applause.)

In returning thanks, Dr. J. A. Macdonald, Chairman of the Council, said that it was only two months ago since he returned from a voyage round the world on a visit to the various branches, and he came back impressed with the power and influence of the Association. The medical profession was not only engaged in the cure and alleviation of sickness, and thereby adding to the health and happiness of the world, but was also engaged, as far as they could, in getting rid of their means of emolument. He might say at once that in his long experience of the British Medical Association there had been no visit that had given them greater pleasure than that to the city of Aberdeen. (Applause.)

Dr. W. T. Hayward, Chairman of the Australian Federal Committee, also in reply, said that in Australia 95 per cent. of the members of the medical profession belonged to the Association. He felt that it should be the aim of the Association to keep peace within their ranks, to let past troubles remain past, and to endeavour to work in union. (Loud applause.)

The health of the guests was proposed by Dr. John Gordon, of Aberdeen, and Professor Nicol, Moderator of the General Assembly of the Chuch of Scotland, and Professor Pontoppidan (of Copenhagen), suitably replied.

Sir William Osler, Bart., gave the health of the President in eulogistic terms, to which Sir Alexander Ogston gracefully responded.

The haggis was "played in" by pipers in the genuine Scotch fashion, and the proceedings terminated by the singing of "Auld Lang Syne."

The Temperance Breakfast.

A large company assembled in the ancient Trinity Hall, Union Street, on the Thursday morning, for the 45th annual breakfast. The chair was taken by Mr. Alexander P. Forrester-Paton, J.P., of Alloa, President of the Scottish and Vice-President of the National Temperance League, and he was supported by Lord Provost Maitland, Dr. Mary Sturge, Sir John Collie, Mr. Guy Elliston, Treasurer Kemp, Mr. Alexander Findlay, ex-Provost Knox, Mr. McAdam Eccles, Dr. F. K. Smith, Rev. J. T. Burton, Dr. Fraser, Dr. Alexander Scott, Dr. Crichton Miller, Dr. Davidson, Mr. T. H. Bickerton, F.R.C.S., Mr. John Turner Rae, N.T.L., and Mr. James Gillies, S.T.L., among others.

The Lord Provost repeated the welcome to the city which he extended on the Tuesday to members of the Association, and especially glad was he to greet its temperance section. A similar welcome was also tendered by the Chairman on behalf of the two Leagues. Mr. John Turner Rae, Secretary of the N.T.L., having read a "Message to the Medical Profession" from the Science and Education Committee of the League, Sir John Collie delivered a brief address on the relation of alcoholism to the medical examination of employees, followed by Dr. Alexander Scott, of Glasgow, who dealt with the industrial aspect of alcohol, and Mr. McAdam Eccles, who emphasised the need for special research into the question of the amount of alcohol in the circulating blood. Dr. Crichton Miller and Mr. T. H. Bickerton (Liverpool), also spoke.

The University of Aberdeen.

The University authorities gave a reception on the Wednesday night in the Mitchell Hall of the magnificent Marischal College, which was attended by over 1,200 members and their lady friends. A capital organ recital was contributed by Mr. J. M. Nisbet, and further music was provided by an excellent orchestra. Academic costume was worn by the majority of the guests.

On the Friday morning, the Senatus of the University conferred the degree of LL.D. (*honoris causa*) upon Sir John Bland-Sutton, Dr. A. E. Garrod, of St. Bartholomew's Hospital, Sir Victor Horsley (*in absentia*), Mr. T. Jenner Verrall, Chairman of the Representative Meetings, and Mr. W. T. Hayward, of Australia.

(To be continued.)

CORRESPONDENCE.

FROM OUR SPECIAL CORRESPONDENTS ABROAD.

GERMANY.

Berlin, Aug. 1st, 1914.

At the Hufeland Society, Hr. Strauss showed a number of preparations, amongst them a case of

Ulcerous Proctosigmoiditis,

a diverticulum of the sigmoid, carcinoma of the sigmoid flexure, affected with benign polypi at the same time, and a series of high-seated polypi which had been removed by means of the galvanocaustic loop.

Hr. Ewald emphasised the importance of examining every rectal case with the rectoscope. If this were always done many errors of diagnosis would be avoided. It was important in using this that the rectum should be thoroughly cleansed beforehand. With this in view he always gave a purgative the night before and a rectal infusion from half an hour to an hour before the examination. He held this thorough cleansing to be quite necessary. In Hirschsprung's disease it was quite characteristic how easily the tube was introduced and the ease with which the instrument could be moved about in the rectum. Hr. Hans Kohn remarked that multiple diverticula in the rectum were only to be met with in elderly people. Hr. Ewald claimed that diverticula were met with in the young, but they were long ones, whilst those met with in the aged were small from diastases in the muscular layers, which allowed the mucous coat to bulge through.

Hr. Strauss observed that in proctogenous constipation he had recognised a distinct form of disease with distinct symptoms and ætiology and requiring special treatment. This differed from that described by Hertz only in one point in that he, Hertz, had attributed to it special features, as shown by the Röntgen rays. As the latter were not at all necessary, however, for diagnostic purposes, it was only a case of giving a new name to the disease described by himself. It was true that such conditions as he had described had been mentioned in literature, amongst others by Ewald, but before the appearance of the speaker's publications, a systematic analysis had been wanting. As preparation of the patient preliminary to the use of the endoscope he was of opinion that an enema given the night before was more suitable than an aperient, as by that the lower bowel was cleansed and further descent of material from above was prevented. For that reason whenever he was about to use the endoscope and he suspected a possible wandering down of fæcal matter he accompanied the washing out of the bowel by a dose of opium.

Hr. Proskauer related a case of stenosis of the sigmoid probably on a syphilitic foundation. The patient was a man æt. 60, who had suffered from chronic ileus for two years, who came in for operation in an acute stage, with a provisional diagnosis "carcinomatous closure of the large intestine." The man died of peritonitis. The autopsy showed a long patch of thickening of the sigmoid commencing 32 cm. above the anus. Here was a long ulcer sharply defined with a smooth black-looking surface, undermined edges and reaching down to the muscular layer. There was also disease of the aorta in the commencing stage, an atheromatous ulcer also in the abdominal aorta. Microscopic examination showed distinct thickening of the adventitia with lymphocytes and giant cells, also a median rent with round-celled infiltration. The whole had the appearance of syphilitic aortic sclerosis.

At the Otologische Gesellschaft, Hr. Brühl gave some account of the

Education of Deaf Mutes

and those who were "hard of hearing" in Berlin. He said the two classes were kept quite apart; whilst deaf mutes were taught in the deaf and dumb institutions, the latter were taught in schools for the hard of hearing founded by Hartmann. There was a committee of examination consisting of Drs. Prof. Bruhl and Director Schorsch, before whom all deaf children where brought. In the years 1913 and 1914, 1,304 children were brought before them. In 168 cases the deafness was due to cerumen, 404 were cases of catarrh of the middle ear, 386 chronic suppurations of the middle ear. Children who were considered suitable for the hard of hearing schools were such as were backward in the ordinary schools, those who were suffering from an incurable form of auditory disturbance, and those who were very hard of hearing (that is, they heard the ordinary voice with both ears at less than 2½ metres, and whispers at less than half a metre). Out of the 1,304 children brought for examination, 238 were found suitable for the "hard of hearing" school.

General measures for management of children suffering from deafness, either total or partial, were first the kindergarten, into which children were admitted at four years of age; the objects here were retention of power of speech when not altogether lost, for children with some remains of hearing power, efforts were made to increase and sharpen it, for the totally deaf the aim was to develop the natural voice, the deaf and dumb schools in which classes were formed according to the mental development. Continuation schools for the deaf and dumb in which trades and useful manual arts were taught to both boys and girls, the latter being fitted for domestic employments.

For the hard of hearing there were at present three institutions for these situated in the northern, eastern and southern parts of the city. The schools were six class schools. A fourth school was in process of erection in the north-west part of the city. It is proposed to build a continuation school for the hard of hearing also. For the hard of hearing in the normal schools where the children had got on well, special classes were held for them. The director of the deaf and dumb school gives special lectures to parents and relatives of the deaf and dumb as to home education of the deaf, and had a special consultation now for advice in special cases.

AUSTRIA.

Vienna, Aug. 1st, 1914.

Pathogenesis of Quincke's Œdema.

At the recent meeting of the Gesellschaft für innere Medizin und Kinderheilkunde in Wien, Dr. P. Neuda brought forward a communication which dealt with the problem of the "Pathogenesis of Quincke's Œdema." The characteristic features of this clinical condition are: (1) Enlargement of the spleen, which is recognisable both by palpation and percussion; (2) intense urobilinuria, with eventual appearance of albuminuria, although the development of the latter is not so constant as that of the former; (3) peculiar properties displayed by the blood, such as increase of the hæmoglobin constituent and ascent of the coloration index, immediately before the attack and during the period of its continuance. When we come to trace back these clinical phenomena with the object of ascertaining their significance and prognostic importance, we are met by the fact that with regard to the condition of enlargement of the spleen, all the histological and experimental facts with which the literature of the subject abounds, and which deal so very copiously with the hæmic functions of that organ, go to establish the view that it exercises a very substantial influence in the direction of the ultimate break-up of the blood-corpuscles. The second of the above-mentioned cardinal symptoms, that of urobilinuria, is in close accordance with the hypothetical suggestion that we are dealing here with a condition of which the essential factor is a hæmolytic process. Thus the presence of urobilinuria could be readily accounted for by a relative functional insufficiency of the secreting cells of the liver, in presence of an excessive supply of the requisite material for the physiological formation of bilirubin, which is itself a direct result of an increased destruction of the blood corpuscles. The third characteristic of the condition in question can also be best explained by the modification of the hæmolytic process. An interesting and important result was procured by the data afforded by a daily systematic determination of the resistance of the erythrocytes. In the absence of the attack the minimal resistance was remarkably low, about 0.54;

during the attack it was found to be 0.42, and even increased further; the maximum resistance which had previously been conspicuously high, about 0.1, was observed to fall to 0.34 after the onset of the attack. From these observations Dr. Neuda came to the conclusion that immediately on the development of the paroxysm the erythrocytes of very high resisting power rapidly underwent destructive changes—this is, of course, a result of increased activity of the process of hæmolysis. The ascent of the standard of minimal resistance is shown by the results of experimental research, and the literature of the subject furnishes us with many published data obtained in this way. Thus we have the fact of the increased resistance which follows the injection of blood deprived of colouring matter—and all these results point to the following explanation: the activity of the hæmolytic process, with its resulting consequence of the development of hæmoglobinæmia, may be held to supply the true explanation of the increase of resistance. The hæmoglobin content of the serum during the paroxysm had been determined by Dr. Neuda in two instances. He would explain the characteristic external physical feature of Quincke's affection, that of acute circumscribed swelling, by a form of hydræmia, which originated from the deficiency of water before the attack, and was clinically demonstrable from the condition of the urine and alvine evacuations, dryness of the mouth and feeling of thirst. He also pointed out the fact that an active influence which produces a change of osmotic pressure in the interior of the vessels, has also a corresponding simultaneous effect in the surrounding tissues. Then as the resistance is not equal in the two cases, the condition thus developed leads to the furnishing of a *punctum minoris resistentiæ*, through which the general transudative diathesis comes to find its opportunity for expression. Exogenous factors that produce a diminution of the powers of resistance of the various surrounding tissues, such as a sudden stroke or continuous heavy pressure, undoubtedly play also an important part under such conditions. Dr. Neuda had also noticed the occurrence of a retention of chlorides in the system in the interval of time which immediately preceded the attack. Thus the condition of acute circumscribed œdema appeared to him as a symptom, while the disease proper—of which its presence furnished an indication—was a hæmolytic process resulting from the presence of a poison.

FROM OUR SPECIAL CORRESPONDENTS AT HOME.

SCOTLAND.

Venereal Disease and Notification.

The Medical Officer of Health for Glasgow, Dr. Chalmers, has been giving supplementary evidence before the Royal Commission on Venereal Diseases. He said that he was of opinion that no form of compulsory notification, whether for any group of persons or of cases, would effect its object. His view was that the public required not compulsion, but education, and he thought that the issue of an authoritative statement showing the danger to life in after years of syphilis contracted at an earlier period, and of the disastrous effect on children, would help to form an educated public opinion which would at least induce those who might contract the disease to seek effective treatment, even if it failed in the ultimate purpose of inducing them to avoid exposure to it. The main problem at the present time was the organisation of means of diagnosis and treatment.

Caledonian Medical Society.

This Society has been holding its annual meeting and dinner in Glasgow. Dr. J. T. Maclachlan, the President, occupied the chair at both. At the dinner, Sir David C. McVail, in proposing the toast of the Society, said that he had found in their records a great deal of evidence of high culture in the medicine of the Highlands. He though they were right in having a society which upheld Celtic medicine and the credit of the Celtic past of the population of Scotland. On the subject of Celtic medicine the Society had a large number of papers, which by themselves would make a most interesting volume. The Chairman, in responding, said that the Society was formed in 1878 by a small but enthusiastic band of medical students in Edinburgh. At the present moment the membership was nearly 300, scattered over Scotland and England and the Dominions across the sea. The Society was chiefly concerned with ancient Celtic literature regarding medicine and cognate subjects. Dr. Barlow, the President of the Royal Faculty of Physicians and Surgeons, gave the toast of "The Universities," to which Sir Hector Cameron responded.

Medical Benefit in Paisley.

The insured population in Paisley is something over 34,000. On the panel there are 30 doctors and 16 chemists. The number on the doctors' lists vary from 5 to 3,213. Six have less than 500 patients each; seven have between 500 and 1,000; eight between 1,000 and 1,500; four between 1,500 and 2,000; three between 2,000 and 2,500; and one has 3,213. This would seem to show that one doctor has none. In regard to sanatorium benefit the current expenditure is, it is stated, at a higher rate than the current income, and great care will have to be taken in administering this benefit if the Committee is not to fall behind. For the year to 12th ult., there were 66 applications for sanatorium benefit, of which 64 were granted and 2 were, on medical grounds, refused.

The Parasitic Causation of Disease.

Dr. J. T. Maclachlan, in his recent Presidential Address to the Caledonian Medical Society, dealt with the subject of the parasitic causation of disease. He stated that, once the parasite or parasites of any given disease were discovered and their habits ascertained, they could be destroyed with as much certainty as the wild beasts of the forest. It was only a question of money and the appointment of expert men to devote their entire attention to such investigation. Dr. Maclachlan advised men over 60 years of age, possessed of wealth, to subscribe £100,000 as their best insurance policy, to the investigation of the parasite or parasites concerned in the causation of pneumonia, which was so fatal to elderly people. In his opinion, cancer would sooner or later disclose a parasitic origin. He appealed to the large cities to appoint at least one expert to devote his entire time to the elucidation of the cause of any single infectious disease, and he predicted the final annihilation of all infectious diseases that afflict humanity.

LETTERS TO THE EDITOR.

[We do not hold ourselves responsible for the opinions expressed by our Correspondents.]

IMPERIAL ASPECTS OF THE POPULATION QUESTION: THE DECAY OF FRANCE.

To the Editor of The Medical Press and Circular.

Sir,—My last letter ended with a brief reference to a lengthy dispatch from the *Times* Paris correspondent dated July 8th, headed "Coloured Labour in France." The correspondent does not even distantly allude to the obvious sound remedies that lie at hand; he merely records the facts that already several thousand African labourers are at work in the coalfields of the North and the vineyards of the South; and that, handicapped by a low birth-rate and high mortality, the population of France no longer suffices to meet the demands for labour made upon it by increasing industrial development.

He does not state that all the northern neighbours of France show an enormously greater birth-rate and a much lower death-rate. He does not point out that in France the defects are due, the one to the deliberate action virtually of the whole of the married couples; the other to the almost complete disregard of the scientific teachings which the whole of Western Europe, except France, is acting upon. Sanitation throughout France remains at this present day in great part mediæval in character. The correspondent then goes on to show that the magnitude of the need for labour is well exemplified in the development of the newly opened Black Country of France on the German frontier.

The correspondent dwells upon the fact that the countryside population has been quite insufficient to man the new industry. In three years the population has grown from 73,000 to over 150,000, more than 70,000 of whom are foreigners. Italians represent nearly three-quarters of this alien population. Their arrival has transformed the national aspect of this corner of the Franco-German frontier. Whole villages have become Italian. Throughout the coal districts, along the Belgian frontier, a similar state of affairs exists. Belgians, however, have taken the place of Italians as the predominant foreign element. Here, as further south, thousands of German labourers have settled. The neighbouring department of the Pas de Calais has been overrun in a similar manner by alien labour drawn from every corner of Europe and from Africa. At Lens there are even about 200 Chinese coolies at work in the mines. The official figures put down the total number of aliens permanently domiciled in France at 1,500,000.

The correspondent does not even hint at the fact that the deficits in population might be made up if the bulk of parents would make necessary sacrifices for their country in rearing a "normal" number of children; and that the high death-rate could be checked at once if the people headed by the Government would begin to act upon the hygienic principles to the establishment of which Frenchmen have so largely contributed. The correspondent apparently expressing the opinion of the French people, among whom he dwells, declares that the population question can be settled by the introduction on the largest scale of North African natives, preferably Kabyles, who, in small numbers, have given great satisfaction.

It is next urged that the State will gain by substituting for the hundreds of thousands of Germans and Italians, French citizens, many of whom are trained soldiers, albeit unalterable aliens. The millions of francs which at present are taken out of the country by the Belgian, Italian and German workmen will be diverted to Algeria.

In a previous letter I mentioned the scheme lately broached for augmentation of the French home army by corps of Africans from their colonies, and pointed out that these men would perish literally like flies in a European winter campaign. In the event of a European war the French would need to reinforce all their African garrisons by troops from home, and this —as Bismarck so clearly saw when he egged them on to colonial enterprises—would tend to handicap them in a conflict with Germany, and might alone render their position from the first hopeless. All these facts —the danger to the State primarily arising from extreme restriction of the birth-rate—have, as I showed in an earlier letter, been constantly urged upon their people by leading French statesmen. The effects upon the individual citizens, and upon the children when the family never on the average exceeds two, and the effects upon the race of a system of artificial selection of the wrong kind, have all been continuously examined and thrust before the eyes of Frenchmen by their men of letters and men of science. The teachings and exhortations have been made in vain, and the French as a mass have refused to recognise among themselves the signs and symptoms which were manifested in the nations of old that were led to decay and ruin by like causes. To some of these latter topics I may, with your permission, perhaps return.

I am, Sir, yours truly,
HENRY SEWILL.

Earlswood.
July 25th, 1914.

P.S.—It was by accident evidently that this letter did not appear along with that of "Neo-Malthusian" in your last issue, July 20th. I have previously dealt with some of the fallacies he enunciates, and shall hope to deal with the rest, if you will allow me, later on.—H. S.
July 30th.

FORCIBLE FEEDING.

To the Editor of THE MEDICAL PRESS AND CIRCULAR.

SIR,—The leading article on "Forcible Feeding Protests" in your issue of July 22nd has been discussed by the Forcible Feeding Protest Committee (Medical).

You say the question is begged by the use of the word "torture." The Committee is prepared to justify its use of that word. The term that is used by those in favour of forcible feeding is "Medical treatment." The Committee considers that before any procedure can be called "medical treatment" it must fulfil two conditions—viz., (1) It must be intended to benefit the patient; (2) It must be done with the consent of the patient. Your readers will agree that in dealing with sane adult patients these two conditions are invariably satisfied in ordinary medical practice. The Committee does not consider that the mere infliction of pain is "torture," but holds that what constitutes "torture" is the object in view when the pain is inflicted. To take a simple example: no one would maintain that when a dentist pulls a tooth he is inflicting "torture," though he may be causing severe pain. Everyone will, however, agree that if a Jew's tooth is pulled out in order to make him disclose where his money is hidden, torture has been inflicted. The Committee maintains that forcible feeding is carried out to compel the prisoner to serve a sentence of imprisonment, and is continued until it is evident to the Home Office that further persistence would kill the prisoner. Your own article bears out this contention, as you complain that none of the members of the Committee's deputation suggested any alternative to forcible feeding "which fits in with the *imprisonment* which society has so far found necessary," etc. Forcible feeding, of course, is not carried out in hospitals on sane adult patients (without consent), and any doctor who performed it would render himself liable to an action for damages. In asylums the patients are insane, and have none of the mental disturbance caused by the anticipation of this constantly recurring torture which is the most distressing feature observed in the case of sane prisoners. The Committee consider that apart from all questions of medical ethics forcible feeding is no solution of the problem. The latest statistics the Committee has been able to obtain show that out of 160 cases of forcible feeding 78 had to be released without completing their sentences; of the remaining 82 all, with one or two exceptions, were sentenced to short terms of imprisonment. It may be news to some of your readers to learn that Mr. McKenna said in the House of Commons on May 21st, 1914, in answer to a question, that "it is the invariable practice to obtain the prisoner's consent before an operation is performed in prison." This reduces the legal aspect of the question to very narrow dimensions. Is the passage of a stomach tube a surgical operation? The Committee maintains strongly that it is, and one of the reasons the deputation was sent to Mr. McKenna was to discover, if possible, on what authority he had decided it was not. If it should turn out that forcible feeding is illegal, and in consequence a revolution becomes necessary in the "whole system of criminal law administration," the Committee will feel that in so far as it has brought this about it has done good work. The grounds for the Committee's action are: (1) Forcible feeding is illegal because it is a surgical operation and the consent of the patient has not been obtained. The Cat and Mouse Act is the legal method of dealing with prisoners who refuse food. (2) Forcible feeding involves the use of force, and is not carried out solely to benefit the patient, it is therefore not medical treatment, and consequently no part of the duty of a medical officer. (3) It is an utter failure; the large majority of the prisoners have to be released.

The correct attitude of a Medical Officer in face of a hunger strike is to report to the Governor of the prison if the prisoner's life is in danger. Responsibility rests entirely on the Governor and the Home Office. The medical profession has nothing to do with questions of this kind, and should never have been dragged in. If we once admit that we are bound to use force to compel our patients to submit to treatment we may be expected to take part in forcible rectal feeding and other enormities. The Committee believes that it has discovered evidence of at least one sane man—Harry Humphris—having been sent to a lunatic asylum after forcible feeding had failed. In this case forcible feeding was continued till (owing to the condition of his nasal passages) it became impossible to pass any instrument through them.

I am, Sir, yours truly,
Frank Moxon,
Hon. Sec., Forcible Feeding Protest Committee (Medical).

[In inserting our correspondent's letter we beg to point out that the primary meaning of the word torture is "extreme pain," while "pain inflicted judicially or with a view to extorting a confession" is a secondary definition. Medical treatment is constantly carried out by medical men without the consent of the patient, as in states of unconsciousness. A drowning person is not asked whether he consents to artificial respiration being performed upon him. It is simply done. Moreover, no "force" need be exerted at all in artificial—a less misleading term than forcible—feeding. Increased effort is only demanded on account of the subject's wilful opposition. Artificial feeding always has and always will be performed solely in the patient's interest.—Ed. M.P. and C.]

OBITUARY.

JAMES DUNCAN FARQUHARSON, M.D., OF NEWCASTLE.

We regret to announce the death of Dr. James Duncan Farquharson, of Westgate Hill, Newcastle, on the 27th July. Deceased was one of the best known medical practitioners in the city, and had an extensive practice in the West End. He had been in failing health for some time. The news of his death came as a surprise to a wide circle of friends, by whom he was held in the highest esteem.

Dr. Farquharson was born at Perth on August 14th, 1858, a son of the late Mr. David Farquharson, a contractor in that borough. He studied medicine at Glasgow University, and in 1884 took the degrees of M.B. and C.M., and obtained first-class honours. At Glasgow University he was for two years stroke of his University boat. In later life he was particularly interested in hunting and fishing, but he always retained his interest in all forms of athletics. He was Surgeon-Major to the 1st Newcastle-on-Tyne Royal Garrison Artillery Volunteers. He was a keen student of local municipal affairs, and was at one time a member of the Newcastle Council, to which he was elected as the representative of the Arthur's Hill Ward in 1897.

Dr. Farquharson was a Fellow of the British Gynæcological Society, and also a Fellow of the Edinburgh Obstetrical Society. He occupied the position of Secretary for some time to the Northumberland and Durham Medical Society, and was President of the Newcastle Scottish Association. Dr. Farquharson was married in 1902 to Miss Adeline Falding, the eldest daughter of Mr. Edward Crossley, of Barnborough Grange, Doncaster.

MEDICAL NEWS IN BRIEF.

Death from Acute Hæmorrhagic Pancreatitis.

At a recent Sunderland inquest on the body of Haswell Thompson, aged seven, the medical evidence showed death was due to an uncommon disease.

The father of deceased said the boy had always seemed healthy, and even on the morning of the day when death took place made no complaint. Deceased, he said, against his wishes used to go to the Scotia Engine Works and ask the men there for bread. Why he went witness could not say, for he got plenty of good food at home.

Dr. Anderson stated that when he saw the boy, about half an hour before death, he was in a state of collapse. The heart was, however, beating strongly, and witness was then unable to say what was the matter. The *post-mortem* which he and a colleague held later revealed that death was due to acute hæmorrhagic pancreatitis. This was a rare disease, said the doctor, and the cause of it was not exactly known. In answer to the Coroner witness hazarded the opinion that it might have been set up by the eating of bad fruit or other unfit food.

A verdict of death from acute hæmorrhagic pancreatitis was returned.

Successful Claim of Factory Worker for £25 Damages.

In the City of London Court last week, before Judge Atherley-Jones, K.C., and a jury, Daisy McShee, factory hand, 23, Clapham Junction, made a claim, through her father, under the Employers' Liability Act against the Asiatic Petroleum Company, Ltd., St. Helen's Court, to recover £25 as damages for personal injuries suffered while working for them.

The plaintiff alleged that on April 28th she entered the service of the defendants. It was her duty to assist in soldering with an acid or chemical, Shell motor-spirit tins, and her hands were poisoned by the acid which was used. She complained to the defendants' foreman, who told her to get on with her work and not to talk.

The defendants' case was that the liquid which the plaintiff used was what was technically known as "killed," was innocuous, and that Mr. Doughty, the defendants' counsel, put some on his hands and lips, and found there was no danger whatever.

The jury found a verdict for the plaintiff, and awarded £25 damages.

Death under Anæsthetic.

Mr. Clitherow Smith, Deputy Coroner, held an inquest at Brixton last week respecting the death of Mrs. Emily Mates, aged 59, a widow, of 12, St. Nicholas Road, Balham.

Dr. G. Grimmer, of Balham, said that, owing to deceased's condition an operation was absolutely necessary. A week previously she had been thoroughly examined, and found to be in a fit state to undergo the operation, which was not considered a serious one. Shortly before the operation deceased was again examined. Witness arranged for Dr. Nunn to administer the anæsthetic, and for a trained nurse to be present. Witness had just concluded the operation, which took from 30 to 35 minutes, when Dr. Nunn told him that deceased looked bad. Artificial respiration was resorted to, and everything possible done, but without success.

Dr. J. H. F. Nunn, of Balham High Road, said that he examined the deceased's heart prior to the operation, and found nothing unusual. Deceased took the chloroform well. Just as the operation was finished, he noticed a change in deceased, and acquainted Dr. Grimmer at once.

Dr. J. D. Stubbs, of Tulse Hill, who had made a *post-mortem* examination, said that death was due to syncope, following the operation, while under the anæsthetic. Chloroform was the proper anæsthetic to use.

The jury returned a verdict in accordance with the medical evidence.

Royal College of Physicians of London.

At the meeting of the *Comitia* of the Royal College of Physicians held last week the following were admitted members of the College:—A. Abrahams, M.B.Cantab., L.R.C.P., M.R.C.S., C. D. S. Agassiz, M.D.Aberd., H. W. Barber, M.B.Camb., F. C. Davies, M.B.Camb., L.R.C.P., M.R.C.S., A. G. Evans, M.B. Camb., L.R.C.P., M.R.C.S., H. T. Evans, M.B.Oxf. and Lond., T. L. Hardy, M.B.Camb., L.R.C.P., M.R.C.S., S. S. Vazirdar, L.R.C.P., M.R.C.S., H. O. West, M.D.Lond.

Society of Apothecaries of London.

The following candidate passed the necessary examinations and has been granted the L.S.A. Diploma of the Society, entitling him to practise medicine, surgery, and midwifery:—G. B. Holroyde.

NOTICES TO CORRESPONDENTS, &c.

☛ Correspondents requiring a reply in this column are particularly requested to make use of a *Distinctive Signature or Initial*, and to avoid the practice of signing themselves "Reader," "Subscriber," "Old Subscriber," etc. Much confusion will be spared by attention to this rule.

Reprints.—Reprints of articles appearing in this Journal can be had at a reduced rate, providing authors give notice to the publisher or printer before the type has been distributed. This should be done when returning proofs.

Owing to Bank Holiday there will be no Irish Supplement with this week's issue.

Dr. P. J. F. (Carlingford).—The address of the writer of the paper referred to is Nancy, France.

N. Q. F. W. (Quebec).—The senior members of the staffs of the Metropolitan hospitals are usually absent on holidays during the months of August and September, and the surgeon mentioned by our correspondent is not likely to be on duty. The answer to the second question is in the negative.

Inquirer.—The X-rays is a valuable means for confirming a diagnosis of carcinoma of the stomach. A recent authority has stated that in a hundred consecutive cases in 87 per cent. a definite diagnosis of the disease was established.

G. P. (York).—A recent suggestion in the treatment and prevention of bed sores is sponging the part with a 1 in 80 solution of creosote in alcohol.

Country Surgeon.—The only dignified course to pursue is the purely ethical one. Apart from and beyond that our correspondent would expose himself to retaliation, which would be harmful to his position.

SCIENTIFIC RESEARCH FOR THE LOCAL GOVERNMENT BOARD.

The President of the Local Government Board has authorised the following researches to be paid for out of the annual grant voted by Parliament in aid of scientific investigations concerning the cause and processes of disease. These are in addition to the investigations already announced.

1. An investigation of the details of the *technique* in carrying out Wassermann's reaction for the diagnosis of syphilis. The Army Council have consented to permit Major Harrison, R.A.M.C., to carry out this investigation. He will act in collaboration with a sub-committee of the Pathological Section of the Royal Society of Medicine.

2. An investigation by Mr. H. J. Gauvain, in collaboration with the Board's pathological staff, into the cutaneous tuberculin reactions of cases of tuberculosis of bones and joints of bovine and human sources.

3. A continuance of the investigations of Drs. Twort and Mellanby on infantile diarrhœa, with special reference to the conditions governing the absorption of toxic substances from the alimentary canal.

4. A further investigation into the causes of still births by Drs. C. J. Lewis and Dale.

P. A. (Retford).—From some recent observations by Dr. D. L. Thomas, Medical Officer of Health of Stepney, it appears that pulmonary tuberculosis is more common among Jews than others, and that it seems to be of a more chronic nature. The death-rate from this disease in Whitechapel last year was more per 1,000 than in the rest of the borough.

M.B.Glasg. (Hampstead).—The matter was discussed at the recent Aberdeen meeting of the British Medical Association, when many speakers in the Section of Medical Sociology dwelt upon the advisability of giving elementary instruction upon sex hygiene to elder scholars.

J. T. S. (South Shields).—Our correspondent is advised not to accept any lower fee than one guinea for the certificate and examination.

Dr. M. G. (Kent).—The symptoms are certainly suspicious of actinomycosis, but in the absence of any definite microscopic findings the diagnosis must remain for the while in abeyance. The Wassermann test, if not already performed, might throw further light upon the nature of the swellings.

Vacancies.

Hulme Dispensary, Dale Street, Stretford Road, Manchester.—House Surgeon. Salary £180 per annum, with apartments, attendance, coal, and gas. Applications to Honorary Medical Secretary. (See advt.)

Certifying Factory Surgeon.—The Chief Inspector of Factories announces the following vacant appointment:—Gargrave (York).

Swansea General Eye Hospital (161 beds).—House Surgeon. Salary £125 per annum, with board, washing, and attendance. Applications to W. D. Hughes, Secretary.

Swansea General Eye Hospital.—House Physician. Salary £125 per annum, with board, apartments and laundry. Applications to W. D. Hughes, Secretary.

Sheffield East End Branch of the Children's Hospital.—House Surgeon. Salary £120 per annum, with board and residence at the Hospital. Applications to Mr. Frederick Gill, Secretary, 14, Norfolk Row, Sheffield.

Horton Infirmary, Banbury.—House Surgeon.—Salary £120 per annum, with board and residence in the Infirmary. Applications to E. Lamley Fisher, Hon. Secretary, Horton Infirmary, Banbury.

Weston-super-Mare Hospital.—House Surgeon. Salary £120 per annum, with residence, board and laundry. Applications to the Hon. Secretary.

Nottingham General Dispensary.—Assistant Resident Surgeon. Salary £180, with apartments, attendance, light, and fuel. Applications to C. Cheeseman, Secretary, 12 Low Pavement, Nottingham.

West Riding of the County of York: Storthes Hall Asylum, Kirkburton, near Huddersfield.—Assistant Medical Officer. Salary £230 per annum, with furnished rooms, board, attendance, and washing. Applications to the Medical Superintendent.

Southwark Union, London.—Third Assistant Medical Officer. Salary £160 per annum, with board, lodging, and washing. Applications to Sydney Wood, Clerk, Union Offices, Ufford Street, Blackfriars, S.E.

Appointments.

Gazdar, Gertrude, M.B., B.S.Lond., Curator of the Museum at the Royal Free Hospital.

Holt, H. M., M.R.C.S., L.S.A., Certifying Surgeon under the Factory and Workshop Acts for the Malton District of the County of York.

Lloyd, Muriel A., M.B., B.S.Lond., Assistant Anæsthetist at the Royal Free Hospital.

Mills, Claude Harry, M.R.C.S., L.R.C.P., Honorary Assistant Surgeon to St. Paul's Hospital for Skin and Genito-Urinary Diseases, Red Lion Square, London.

Neill, A. W., M.D., Ch.B.Edin., Physician-Superintendent of Warneford Asylum, Oxford.

Newsholme, H. P., M.B., Ch.B.Oxon., B.Sc.Lond., M.R.C.P., D.P.H., Assistant Medical Officer of Health to the Surrey County Council.

Platt, Kate Anne, M.B., B.S.Lond., Principal of the new Queen Mary Medical College at Delhi.

Stanford, W. Bedell, M.D.Durh., M.R.C.S., L.R.C.P.Lond., Honorary Medical Officer to the King Edward Memorial Hospital, Ealing.

Viner, G., M.D.Lond., F.R.C.S.Eng., Assistant Surgeon to the Royal Westminster Ophthalmic Hospital.

Walker, Norman H., M.D., B.S.Lond., D.P.H., R.C.P.S., M.R.C.S., L.R.C.P.Lond., Assistant Medical Officer of Health to Durban Corporation, Durban, Natal.

Births.

Collingridge.—On July 31st, at "Goldwell," Goudhurst, Kent, the wife of W. R. Collingridge, M.R.C.S., of a son.

Craig.—On Friday, July 31st, at 113 Albany Street, Regent's Park, N.W., to Dr. and Mrs. Jas. C. Craig—a son.

Gillies.—On the 24th inst., at Kindar House, New Abbey, Dumfries, the wife of Hugh Gillies, M.R.C.P., of a daughter.

Harvey.—On August 1st, at "The Dene," Great Shelford, near Cambridge, to Dr. and Mrs. W. Henwood Harvey—a daughter.

Markham.—On July 27th, at Rose Villa, Jesmond, Newcastle-upon-Tyne, the wife of Surgeon E. L. Markham, M.B., Royal Navy—a son.

Marriages.

Benjafield—Gelardi.—On July 28th, at Holy Trinity, Brompton, Joseph Dudley Benjafield, M.D., of 60 Wimpole Street, younger son of Dr. William Benjafield, Rocklands, Attleborough, to Elvara Helen, elder daughter of Gustave C. E. Gelardi, Folkestone.

Bomford—Green.—On July 30th, at Colney Heath Church, Herts, Trevor Laurence Bomford, Capt. Indian Medical Service, M.B., eldest son of the Rev. Trevor Bomford, M.A., C.M.S., Peshawar, to Winifred Dora Green, elder daughter of Alfred Pierce Green, M.B., of Johannesburg, Transvaal.

Dinnis—Taylor.—On July 28th, at St. Mary's Church, Tyndall's Park, Bristol, Alfred Dinnis, M.R.C.S., L.R.C.P., L.D.S., son of Thomas Dinnis, of Clubworthy, Egloskerry, Cornwall, to Elsie Beatrice, elder daughter of Frederick Taylor, of Guy's Cliff, Elmdale Road, Clifton, and Dolphin Street, Bristol.

Murphy—Goodliffe.—On July 30th, at Corpus Christ Church, Maiden Lane, W.C., Francis Murphy, L.R.C.P. and S.Edin., of St. Finbar's Norbury, S.W., to Ada Margaret, youngest daughter of the late W. F. Goodliffe, Lisle House, Bournemouth.

Deaths.

Batley.—On July 31st (suddenly), at Christchurch, Hants, Albert Brook Batley, M.R.C.S., M.R.C.P., fifth son of the late Joseph Batley, of Huddersfield.

Blake.—On July 28th, at 95 Ashley-gardens, Maria Elisabeth Baldwin, wife of Morgan Dix Blake, L.R.C.P., daughter of the late Hon. John Ross, Q.C., of Toronto, Ontario, aged 46.

Gibaut.—On July 30th, at Ashmore, Surbiton, Emily, widow of Walter M. Gibaut, Staff Surgeon, aged 75.

Myers-Ward.—Suddenly, at St. Margaret's, Skegness, Charles Frederick, the beloved husband of Maud Myers-Ward, of Norwood, London, of King's College and late Professor of Physiology, Sheffield University, in his 49th year.

HULME DISPENSARY.
DALE STREET, STRETFORD ROAD, MANCHESTER.
WANTED a HOUSE SURGEON duly registered and fully qualified. Salary £180 per annum. Annual increase £10 to £200, with apartments, coal and gas. Applications, with testimonials, at once to Honorary Medical Secretary.

THE MEDICAL PRESS AND CIRCULAR.

"SALUS POPULI SUPREMA LEX"

VOL. CXLIX. WEDNESDAY, AUGUST 12, 1914. No. 7.

NOTES AND COMMENTS.

War!

SINCE the day of our last issue—seven brief days ago—history has been made at an unprecedented pace. At that time war had already been declared amongst four of the largest and several smaller Continental powers. For the protection of the honour and safety of the British empire and her friends our government declared war against Germany at 12.15 a.m. on the morning of Wednesday, the 5th August. That declaration has been followed by prompt and decisive action. The British army and navy have been mobilised; £100,000,000 was voted unanimously by Parliament; Lord Kitchener was appointed Secretary of State for War, and his request for 500,000 additional men in the army granted; portions of the country have been placed under martial law, and it has been resolved to send out an expeditionary force to the Continent. As might well be imagined, a warlike movement of this magnitude must shake the social structure more or less to its foundations. So far the nation has responded to the test with that cheerfulness and steady confidence which characterise the insular character in time of stress, and in this instance, stand recorded for ever in the vast rush of our countrymen of all ranks to join the colours and fight for King and country.

Is the Emperor William Sane?

IN all the chain of events that has ended in the fierce tragedy of war the will of one man has been dominant. The fact that it should be possible for any single human being to hold at his mercy the lives and fortunes of many millions of his fellow-creatures in itself presents a standing satire upon the collective wisdom of the peoples of Europe. As to the Emperor himself his conduct has for many years past been that of a versatile, arrogant and eccentric man—obsessed with an exaggerated view of his own powers and his place in creation. His recent acts are of such a nature as to suggest that he has lost the higher mental control that constitutes sanity. To challenge Russia alone was to engage in a formidable task, but what can we think of the mental condition that has prompted him in addition to attack France and Belgium, to defy and to force the British nation into war, to say nothing of various other provocative acts in connection with the Triple Alliance. The picture of this one man engaging half Europe in mortal combat suggests the grandiose delusions and conduct of a man who in private life would probably be called upon to undergo a careful scrutiny of his mental condition.

Medical Men and the War.

So far as the medical profession is concerned the immediate effects of the war have been already profound and far-reaching. Under the army organisation methods of Lord Haldane a large number of medical men are liable to service in the Territorial Force, and many of them have been already called upon to join, while others may be ordered away at any moment. Many men on the staffs of the hospitals—both honorary and resident—have left for active service, and not a few of the huge general hospitals are left without adequate medical service, and in some instances patients have been sent back to their own homes so as to relieve the pressure upon the wards. Nurses have also been requisitioned, and as the war is on a large scale the extent and gravity of which it is impossible to foretell, the drain upon the medical profession in the United Kingdom is likely to continue for a long time. Not only is there an absolute shortage at the present moment in all classes of public and private medical practice, but the war is absorbing all the floating margin of qualified practitioners available, as well as senior medical students who are invited to join the Army and Navy as dressers. A large number of commissions—military and naval—are offered to medical men under 40 years of age.

One Guinea Fee.

THE financial aspects of the war naturally present a serious problem. The credit system which governs the ordinary business transactions of the community is subjected to a severe strain by the disturbances consequent upon our International war. It is probable that our great grandchildren will have to stand the burden which is now perforce thrust upon the present generation. It seems not unlikely that a great deal of loss will be inflicted upon the medical profession, both by reason of the service which they will in many instances loyally render to the State and, indirectly, by the lessened capacity for payment of fees by the community. The issue of one pound Bank of England notes is one of various precautions taken by Government to relieve financial tension. It is interesting to note that in the Napoleonic wars which culminated at Waterloo a century ago, notes were issued of the face value of one guinea, a sum that still survives in the customary fee of the physicians of our own day.

The Free Death Certificate.

A CORONER'S jury at Sheffield recently put on record its views as to the propriety of a medical man charging for a death certificate. Some interesting points were raised in the course of the inquiry. The inquest was held because of the vague nature of the statement as to cause of death, which was returned as "syncope." The document thus filled in was accepted by the Registrar upon learning that deceased, a panel patient, had been under medical treatment for two weeks before death. The coroner's attention was drawn to the matter by complaints as to the unsatisfactory nature of the medical attendance. An inquest was held, and it was shown by *post-mortem* evidence that deceased was in a late stage of Bright's disease. The coroner pointed out the unsatisfactory nature of the death certificate, as syncope or heart failure meant little or nothing in that connection. The medical man said that deceased lived in a single room with his wife, who was away at work all day. Deceased was in an indescribably dirty state, and never had his clothes off from the commencement of his illness to the day of his death. He urged deceased to go into the infirmary, where he could get proper nursing and attention, but his advice was not taken. Under these circumstances the complaints as to want of medical attention were practically dismissed by the coroner. As to the charge of one shilling for the death certificate, the person who paid it expressed his surprise that a fee of the kind was asked from a panel patient. Needless to say, the law directs the medical attendant to grant a death certificate without fee. A medical man has no right to demand it as a right, although there is nothing to prevent him asking for and accepting a fee for the service in question. It certainly is not usual to charge for a death certificate from persons in such a state of poverty as deceased.

A Courageous Inquest.

The most striking point raised in this inquest is the fact that the coroner held it because the return of the cause of death was vague and unsatisfactory. His action we approve, as it seems tolerably clear that without some system of critical control of the kind it would be impossible for him to discharge his function of inquiry into unnatural deaths. In doing so, however, he has shown considerable courage, for the average coroner errs in the opposite direction, and holds as few inquests as possible. In that course he is prompted, naturally enough, according to his temperament and special environment, by considerations of a personal nature, and by the constant pressure he is under to save the ratepayer. There is much to be said, indeed, in favour of the practice of paying coroners *pro rata* with the number of inquests actually held—that is to say, from the point of view of public safety. Another fact of vital importance to the community is the acceptance by the local Registrar of a certificate of death filled in with so worthless a primary cause of death as syncope. It is obvious that such a certificate would cover murder, abortion, suicide, and a variety of other violent and unnatural deaths. It is high time that local Registrars were duly informed of the precise nature of their duties, and were kept to a proper standard of administration by a strong central executive at Somerset House. Under present conditions the Registrars are innocent, but none the less powerful, friends and confederates to a whole host of quacks, charlatans and evil-doers of various kinds. In the particular inquest under notice it is clear that the acceptance of such a certificate as that challenged by the coroner might have afforded a loophole for more than one kind of criminal or otherwise unnatural death.

Dr. Arthur James Milne, M.B., B.S.Aberd., has been appointed Assistant Medical Officer of Health for Johannesburg at a salary of £800 per annum, with an allowance of £15 per month towards the upkeep of a motor car.

LEADING ARTICLES.

THE MEDICAL PROFESSION AND THE WAR.

Another "page of the great book of war," happily closed to our ken for the last fourteen years, has been ruthlessly disclosed to view. It is scarcely more than a week ago that many members of the medical profession were quietly discussing in congress some of the problems incidental to their daily practice. Now all is changed, for the call to arms has resounded through the length and breadth of the land. Things have moved with such startling rapidity during the past week that large numbers of medical men have relinquished their ordinary work and taken up active service with the Forces to place their skill at the disposal of the sick and wounded. Many civilian practitioners and senior students have likewise offered their services, and to the credit of the rank and file of the profession be it said that every name upon the *Medical Register* stands for a personality that is willing to efface its own feelings and desires in responding to humanity's cry for help. Being prepared for emergencies at all times, the medical man who obeys the call to service is taken by surprise less, perhaps, than any other member of the community, not even excepting the soldier. In one sense it cannot be called a surprise at all, for it matters comparatively little whether the patient be lying upon a stretcher, or prone upon the battlefield, or in a comfortable bed. The surgeon with the Forces is simply carrying on his ordinary life work, that of relieving pain and suffering, under different surroundings to those to which he is usually accustomed. This is neither the time nor the place to magnify the office of the medical man, but it may be mentioned as one further instance of his readiness to work without fee or reward that the practitioners upon the London panel have agreed to provide free treatment for the dependents of reservists who have been called upon to serve their King and country in this time of need. It is impossible yet to tell how great the demand may be for medical assistance, both at the front and also in the base hospitals, so that the likelihood of a further depletion in our ranks at home has to be faced. One suggestion has been made in view of the present emergency which seems to be quite practicable—namely, that all candidates who have recently failed in their final examination for medical degrees or diplomas should be re-examined at once in their weakest subjects, and, if they pass, be allowed to receive their qualifications; and also that all those candidates who failed by narrow margins, and who are anxious for active service, should be let through at once. All delay is dangerous in war, and no stone should be left unturned for a moment whereby the efficiency of the medical service may be increased. Past experience in warfare has demonstrated the importance of forethought and attention to detail in the matter of organisation and equipment. The medical *apparatus belli*, if more costly than that of half a century ago, has the advantage of being more portable; and, further, the sick and wounded will benefit as a result of the practical application of recent scientific discoveries in medicine and surgery. It has been urged. and rightly so, that every man in the services who has not already submitted to anti-typhoid inoculation should be so protected at once, for there can be no doubt as to its power of producing immunity against one of the greatest scourges of armies in the field. Turning our attention once more to home matters, it is feared in many districts, owing to the shortage of medical men which will, necessarily, be experienced, that the poor will suffer in consequence. A little readjustment all round of medical appointments, together with the unselfish co-operation of local practitioners, will, no doubt, readily combine to render the present changed conditions easier to bear, and to smooth the lot of the sufferers at our own doors. Most, if not all, of the hospitals are fully alive to the exigencies of the situation, and are prepared to receive soldiers and sailors, wounded or invalided from active service, during the war. Many other buildings have also, we understand, been placed at the disposal of the Government or of the British Red Cross Society for a similar purpose. Ours is, we believe, a righteous cause, and justice is the rightful sovereign of the world. In the meantime our readers will wish God-speed to all medical men and nurses who have nobly placed their services at their country's disposal in the sacred cause of humanity. God Save the King!

HORMONES AND THEIR PHYSIOLOGICAL BEARINGS.

The discovery of those curious and interesting bodies, the hormones, has had much the same disturbing influence on current theories of organic life as that of radium on our conceptions of the physical constitution of the universe. Hormones, be it remarked, have been defined as "substances in solution which, conveyed from one organ to another through any of the liquid media of the body, effect a correlation between the activity of the organ of origin and the organ on which they exert their specific effect." The hormones, however, are bodies which are most satisfactorily observed in their effects, and one of the best known is secretin and its immediate predecessor pre-secretin. It was observed that the introduction of dilute hydrochloric acid into the digestive canal was followed by a remarkable increase of the secretion of pancreatic juice. Subsequently, Starling ascertained that this was not due to an "acid reflex," as suggested by Pavlov, but to the action of the acid on a previously unknown body to which the name secretin was applied. Secretin, as produced, is conveyed by the blood to the other digestive organs, in which it sets going certain functions. Now secretin is produced. apparently, when the acid contents of the stomach come into contact with the pylorus and duodenal walls; consequently, when the acid is deficient, the supply of secretin falls off, and the subsequent steps in digestion, lacking their normal stimulus, are imperfectly performed. This explains many previously obscure points in the rhythm of the organic functions. It was supposed, for instance, that the administration of hydrochloric acid, and substances such as meat extractives which excite the secretion of hydrochloric acid, assisted digestion merely by providing the acid medium required for pepsin to produce its maximum effects, but these data show that the influence of the acid is more far-reaching than this, since it not only regulates the propulsion of the gastric contents into the duodenum, but also unlatches the internal secretions which set the rest of the digestive machinery in movement. This fact is interesting in view of some observations made by Beveridge, of New York, in respect of the action of lactic bacilli on the production of secretin. Apart from a deficiency of acid the other causes interfering with the normal production of secretin are intestinal putrefaction, ulcer of the duodenum or pylorus, and any lesions involving the mucosa of the duodenum and upper part of the small intestine. It would seem, therefore, that the good effects which follow the lactic ferment treatment are due not only to the fact that it inhibits intestinal putrefaction, but in part also to acid stimulation of secretin production by the lactic acid, which is a normal product of these ferments—a sequence of events which opens up a wide field for observation. This suggests a fresh departure in functional therapeusis, for it seems probable that in the near future, instead of endeavouring to supply the particular ferment which we imagine to be lacking, we shall aim at isolating and utilising the soluble principles which unlock that particular function. It is by no means unlikely that the therapeutical effects of some of the ferments which are currently administered are, in part at any rate, due to a subtle influence exerted by them as hormones when absorbed into the blood current. The importance of this discovery is enhanced by the fact that the hormones do not appear to be specific to particular organisms, but are chemical stimuli acting on the particular function, or rather organ, whether in man or animals.

CURRENT TOPICS.

War and the Social Sense.

Socrates once said that man was a gregarious animal. So he usually is—under compulsion. Our tendency seems to be that of units which have got together somehow and have then developed a psychic centrifugality. Each man tries to escape from the influence of his fellows as much as he can. The aim of everybody is "to live his own life," and the only established convention is unconventionality. It is true that the powers in being assault us in assembled abstracts and overwhelm us in outrages of classification *pro formâ*, but the very might of their inspectorial coercion is the measure of our innate opposition. Our lives announce that we are individual with the universal corollary of injunctability. In these countries we have been learning to disrespect the law *per se*, and our ambition has been to live out our life as the light. Now we have changed. The trumpet has done that. The call to keep up our end at Armageddon has woken the social sense. The phenomenon is a psychologically interesting one. It is outside our experience to find the majority of men consciously and disinterestedly working for the common good, where that good clashes with their interests as individuals. That such is the fact is a matter for congratulation. The rapidity with which we have put away our differences—differences that a few short days ago seemed hopelessly irreconcilable—may make our everyday convictions seem somewhat insincere. That is the superficial view. We may be sincere about a cricket match but we can put away thoughts of rivalry when the word comes; and so with greater issues. As men of science we are citizens of the whole world. We must remember that though patriotism is great, humanity is greater. At this crisis our way is plain. We trust and believe that the interests of patriotism and of humanity are identical. Our way lies straight before us. We must tread it mightily.

The Hygienic Value of Paper.

It is hard to realise, in our advanced state of civilisation, the consequences of being deprived of what has, hitherto, been regarded as one of the necessities of life. The rumours of a shortage in the supply of paper to this country on account of the war causes one to reflect upon paper and paper-making itself. Not until 1685 was the art introduced into England, but it is only within recent times that the possibilities of paper as a material of some hygienic advantages have been recognised. In an interesting paper upon the subject read at the Congress of the Royal Sanitary Institute at Blackpool last month by Dr. S. Rideal, D.Sc., the use of paper is recommended for home articles in daily use which require frequent washing. It is suggested that such movables as plates, cups, and even dustbins, should be made of paper and destroyed when soiled. The use of paper handkerchiefs has been advocated for consumptives for some time past, and the paper serviette has come to stay. The ordinary housewife, we fear, would think twice before being beguiled into substituting paper blinds, curtains, table-covers, and towels in place of ordinary linen goods, sanctioned by custom and tradition. They might obviate danger of infection, being only used once; but, unless rendered non-inflammable, they would be highly dangerous. The use of paper disinfecting bags containing formaldehyde, for dealing with infected clothes, etc., described by Dr. Munson, appears to solve some of the problems of domestic infection, while these receptacles are of service as emergency disinfectors for army use. If paper-bag cookery be not always practicable, there must be several ways in which the more extended use of paper should appeal to medical men and sanitarians on hygienic grounds.

Back to the Brand.

The *Medical Officer* points out that in some ways our most up-to-date communities are merely copying unconsciously their forgotten ancestors. The idea of placing a distinctive sign on the dwellings of those suffering from an infectious disease has existed from time immemorial. The Jews of old did it, and in our own country, when the great epidemics of the black death and the plague swooped down on the people, red crosses or some such brand were compulsorily put on the doors of every stricken house. America has just learnt of the scheme and is adopting it with a touching and whole-hearted enthusiasm. Every State in the Union but nine has legalised "placarding." The circumstances of its use are vague and local, as is the exact manner of its incidence, but the principle is there. Is it a red and white placard or a yellow flag? No matter, the notice to all whom it may concern is branded on the building, and must not be removed till the sanitary authorities have poured their last libation to Lister. In some districts where the passion for information outweighs the citizen's fear of infection he may tell the kind of infection he is to keep away from by the colour of the poster. But that is luxury. The fact remains that the United States have revived an old custom and have found it extremely valuable. In England the system is adopted only by a few districts, and we are not aware that it has been of any great benefit to those concerned. Still it is interesting to see a people which prides itself on its up-to-dateness enthusiastically resurrecting an old custom long given up by the generality of its originators.

Maternity and Child Welfare.

Much attention has been paid of late years to infant welfare work, both by local authorities and also by various private agencies. Hitherto the efforts of these bodies have been largely concerned with the child in the first year of its life, but there is no reason, of course, why their scope should not be considerably extended so as to embrace the whole period from before birth until the time when the child is entered upon a school register, crêche, day nursery, or other school. The Local Government Board has recently issued a circular to county councils and sanitary authorities with regard to an estimate that has been laid before Parliament for a grant to be distributed by the Board in aid of the expenditure of local authorities and voluntary agencies in respect of institutions or other provision for maternity and child wellfare. It is pointed out that more extended and systematic efforts are needed to deal with this matter, and that it is desirable to arrange for medical advice and, where necessary, treatment for expectant mothers and mothers with infants and little children. In an accompanying memorandum it is suggested that a complete scheme should comprise certain elements each of which may be organised with special reference to infantile welfare. These include arrangements for the local supervision of midwives, an ante-natal clinic and the home visiting of expectant mothers, a maternity hospital or beds at a hospital, in which complicated cases of pregnancy can receive treatment, in addition to such assistance as may be needed to ensure the mother having skilled and prompt attendance during confinement at home, or to send her to a suitable hospital. Finally, it is stated that provision should be made for the treatment of complications arising after parturition, for systematic advice and treatment of babies at a special clinic, and for the systematic home visitation of infants. The Board is willing to consider applications for grants in respect of any work falling within the scope of the above memorandum, and it expresses its willingness to assist local authorities in the initiation of schemes or the extension of existing ones.

Smoking.

We die daily. Apparently the process is largely suicidal. We are always doing things we ought not to do, and sins we forget to commit are few and far apart. We eat, and poison ourselves through our colons; drink, and line our arteries with lime; and are merry, with the most disastrous psychical results. And, of course, we smoke. We were always told it was bad for us. That is probably why we ever wanted to do it. We are still being told it is bad for us. Not in the simple downright terms of our youth, but now it is the "lambent pupillage of slow, low dry chat" that encourages conviction. J. Pawinski has contributed a comprehensive study of the effects of tobacco on the heart and blood vessels to the *Zeitschrift für klinische Medizin*. Now our ideas on the danger and value of tobacco smoking are rather vague. One authority refers to the "shirt blood-spotted and cut carotid" that is the inevitable result of cigarette consumption, while his equally eloquent colleague looks on my lady nicotine as the universal solace described in Kingsley's panegyric. Pawinski confines himself to facts and statistics. He finds that immoderate smoking occupies second place—the first being held by obesity—in the causes of arteriosclerosis of known ætiology. He also finds that nicotin is present in tobacco smoke and that nicotin in quantities so small as 0.001 to 0.003 gram has caused serious symptoms of poisoning. Pyridin and collindin are also found in the smoke. The former is the more irritating, and is found when a pipe is smoked. The latter is chiefly formed in cigarettes. Here we have some facts. They are probably quite trustworthy. Yet we all smoke, and most of us are apparently none the worse for it, and it is a matter of experience that the smoker who knocks off for a time is not obviously improved in body or temper. So there things stand. Men may say what they like. The smoker will listen to their words and fill his next pipe. There is no use arguing about it. Science is only science, but a good cigar is a smoke.

The Use of Electrolytic Disinfecting Fluid.

An interesting account of the hypochlorite of magnesia solution prepared at Poplar by the electrolysis of Water Board water, containing definite proportions of the chlorides of sodium and magnesium, is given in the annual report of the Medical Officer of Health for the borough, Dr. Fred. W. Alexander. It is stated that, in spite of adverse criticisms, the process has been a success for the last eight years. The cost of the fluid works out at a little less than one halfpenny per gallon. When added to the swimming baths in use in the borough in the proportion of one part of chlorine to two million parts of water it prevents the formation of slime in the water, and there is no offensive smell when the baths are being cleansed. Since the installation of the plant 312,999 gallons of fluid have been manufactured, and the Public Health Department of the borough, the various institutions of the Council and the Board of Guardians, are supplied with an unlimited quantity. One of the latest plants to be installed is that for the Portsmouth Corporation, in which case the fluid to be electrolysed is sea-water. Dr. Alexander remarks that when it becomes generally known that a ready and efficient disinfectant can be manufactured by this process without cost of materials but merely that of electric current, other seaside towns will, no doubt, follow the example of Portsmouth. Several technical improvements in the electrolytic apparatus have taken place since the first installation, notably the construction of a double cell to obviate "creeping" of the current and, therefore, a saving in efficiency. The method appears to have so many advantages that it deserves an extended trial by municipal health authorities.

War Effects on the Medical Press.

Readers of the daily and weekly newspapers have doubtless noticed the sudden alteration in the size of these publications. This week the bye-effects of the European calamity will be seen in the curtailment of the pages of all the medical journals. In the reading portion of The Medical Press and Circular, our foreign correspondence columns will, we fear, be closed altogether after the present week, for obvious reasons, so long as the war lasts. Fortunately we have a few French and German lectures that were sent by our correspondents before hostilities commenced. One of these, by Professor Laval, on "Grave Surgical Decisions in Daily Practice," appears in our present issue, and the others will be published in our columns in due course. But the advertisement section of this journal, as well as that of our contemporaries, will show large reductions, because so many of the articles advertised were the productions of French and German spas and chemical manufactories, the representative houses in this country having stopped their publicity contracts as they will be no longer able to get the materials from the respective countries. In this category must be placed the Apollinaris, Carlsbad, Evian-les-Bains, Giesshubler, Rubinat, and Vichy-Celestins table and mineral waters; and many of the productions of reputed German chemical manufactories so popular with the profession in this country will be unattainable when the present limited supply becomes exhausted.

PERSONAL.

H.M. the King has been pleased, on the recommendation of the Secretary for Scotland, to approve the appointment of Mr. Theodore Shennan, M.D., F.R.C.S.E., Pathologist to the Royal Infirmary of Edinburgh, to be Regius Professor of Pathology (Sir Erasmus Wilson Chair) in the University of Aberdeen, in the place of Professor George Dean, deceased.

Mr. E. Magennis, F.R.C.S.I., has been appointed representative of the Apothecaries' Hall of Ireland on the General Medical Council.

Dr. Francis Dudley, L.R.C.P. and S.I., L.M., has been appointed Medical Superintendent of the Cornwall County Asylum at Bodmin.

Dr. Henry Holroyd, M.B.Lond., D.P.H., has been appointed Assistant Medical Officer of Health and Assistant School Medical Officer for Norwich.

Dr. William Rees Thomas, M.D.Lond., has been appointed Medical Superintendent of the State Institution for Mental Defectives at Moss Side, Liverpool.

Mr. Edward Hugh Edwards Stack, M.B., B.C. Cantab., F.R.C.S.Eng., has been appointed Hon. Ophthalmic Surgeon to the Bristol Royal Infirmary.

Dr. E. Lauriston Shaw, M.D., F.R.C.P., will deliver the inaugural sessional address before the Pharmaceutical Society of Great Britain in October next.

The Murchison Memorial Scholarship in Clinical Medicine awarded by the Royal College of Physicians of London and the University of Edinburgh alternately, has this year been awarded to Charles Jennings Marshall, M.B.Lond., of Charing Cross Hospital.

Professor E. S. Reynolds, M.D., F.R.C.P., will deliver the inaugural address of the medical session at the University of Manchester in the Medical School, on October 8th, at 4 p.m. The subject will be "The Industrial Diseases of Greater Manchester."

The Royal Colleges of Physicians of London and Surgeons of England have awarded the Sir Gilbert Blane naval medal to Surgeon Gilbert Francis Syms, R.N., who obtained the highest aggregate marks at the recent examination for promotion to the rank of Staff-Surgeon at the Medical School of the Royal Naval College, Greenwich.

FRENCH CLINICAL LECTURE

ON

GRAVE SURGICAL DECISIONS IN DAILY PRACTICE.

By Prof. ED. LAVAL, M.D.,

Of the Faculty of Medicine of Paris.

[Specially Reported for this Journal.]

A young woman who has not menstruated for some time is seized with severe pain in the abdomen, turns pale, becomes faint, or even faints outright, and has a small, rapid pulse. If on exploring the abdomen we detect ill-defined resistance just above the pubes, and, on vaginal examination, a lax *os uteri* with an enlarged uterus, we can have little hesitation in drawing the conclusion that we are dealing with a case of ruptured tubal gestation accompanied by internal hæmorrhage, calling for immediate surgical intervention.

Similarly, when a patient has been vomiting blood for some time, not in any great amount, but frequently repeated in spite of treatment, and recurring as soon as a return is made to ordinary food, reducing the patient to a state of extreme prostration, neither the physician nor the family have any hesitation. "Anything rather than death from hunger." Gastro-enterostomy, with or without resection of a gastric ulcer, is plainly indicated and commands assent.

Strangulated hernia comes into this self-same category, that is to say, the group of affections which call for instant surgical intervention.

But supposing we are dealing with a patient—I mean a private patient, because the question virtually only arises in private practice—who presents a small ulcer of the tongue, say, the size of a bean, presenting the classical features of epithelioma, viz., irregular margins and a greyish base covered with necrosing *débris*, it is our duty to advise a radical operation, possibly accompanied by excision of the cervical glands, in fact, very extensive mutilation of the mouth and one or two big incisions in the neck. We shall have the greatest difficulty in getting the patient and his friends to act on our advice.

This is the sort of case which I propose to discuss, cases in which there appears to be a striking disproportion between the visible lesion and the gravity of the operation proposed for its removal. To begin with, the practitioner must be absolutely sure in his own mind that his diagnosis is sound and his prognosis correct. Then, too, it is well for the practitioner to imagine himself in the patient's skin, so to speak; he must ask himself whether, under the circumstances, he himself would consent to undergo the operation he is advising. He need not feel hurt should his counsel be rejected, since, if he be sure of himself, he has only to wait patiently for the future to establish the correctness of his attitude. If he does not feel quite sure of himself, then no doubt he is justified in feeling uneasy, because the subsequent course of events may not bear him out. He must be sure of himself, because, should the operation not yield the hoped-for result, or should the patient fall victim to some operative incident, it is nearly always on the practitioner that the blame falls rather than on the surgeon. Naturally, brought face to face with the prospect of a grave operation, the patient and his friends are but too likely to look round for a loophole of escape. Might they not try such and such a treatment first, seeing that it answered very well in the case of an acquaintance "suffering in the same way," or the quasi-miraculous serum of which they have read so much in the papers. The well-advised practitioner will not shrug his shoulders and abruptly refuse to discuss these alternative methods. He must try and explain to persons, for the most part ignorant of medical matters, that in this particular instance the treatments they suggest cannot, and will not, answer his purpose, and in simple language he must do his best to explain why this is the case. If he himself is sure of his ground he can generally convince them of the necessity for the operation.

But let me refer to a few instances of cases calling for these grave decisions. A man between 40 and 50 years of age is seized with violent pain during the night in one eye; the pain radiates round about the orbit, in the forehead, over the corresponding half of the head, and soon becomes absolutely intolerable, while *pari passu* vision becomes dim. The conjunctiva is red, injected and œdematous, the pupil dilated and sluggish, the iris dull, and the globe, on palpation, feels of wooden hardness. Obviously it is a case of glaucoma, and only prompt iridectomy can save the eye. The patient is ready to consent to anything, so acute is the pain, but the family is often difficult to persuade, though, when given to understand that sight itself is threatened, they reluctantly acquiesce.

Mastoiditis is another condition in which grave decisions may have to be taken. Glaucoma menaces sight, but mastoiditis threatens life itself. A girl ten years of age has had running at the ear since an attack of typhoid fever at 6. There has been no pain to speak of until about a week ago, when she began to complain of tenderness behind the external auditory meatus coinciding with sudden arrest of the discharge. The pain tends to become worse and it radiates all over that side of the head, preventing sleep. Three days ago some swelling was first noticed behind the ear, the temperature goes up at night, and the little patient complains of feeling sick.

When we examine the mastoid region it is seen to be red and somewhat swollen. The ear stands out rather more than usual, but the retro-auricular furrow is intact. Pressure on the mastoid prominence causes sharp pain. Evidently there is deeply-seated mastoid suppuration, and it must be opened up. Here we have only to point out that, if unrelieved, it will go on to abscess of the brain, culminating in meningitis. Very seldom will the friends assume the responsibility of refusing an intervention.

The territory of the abdomen opens up a wide field to these disagreeable surprises. Chronic appendicitis, with its insidious onset, is the type of this genus. The patient has been losing weight, he has become apathetic and displays a tendency to neurasthenia, his complexion is dull, earthy, his liver is somewhat enlarged and his conjunctivæ are yellowish, the tongue is dirty and his appetite is poor. Of course, the patient and his friends only too readily attribute these symptoms to overwork, to the need of a change of air, to "worry," but the practitioner, who finds nothing to account for the loss of flesh in the lungs, heart, or in the patient's antecedents, turns to the abdomen. Might it conceivably be a case of chronic appendicitis? The patient is quite certain that he has never had any pain in the right iliac fossa associated with nausea or sickness. But pressure over MacBurney's point reveals some muscular rigidity; there is some tenderness, especially deep down. Yes, unquestionably there is chronic appendicitis. We have only to wait a while, visiting the patient at odd times, and if then we discover that there is still tenderness over the appendix and nowhere else, we may rely upon it that he is suffering from chronic appendicitis.

Now just imagine the attitude of the family; they have called you in just to advise as to diet in the case of a child whose stomach is upset. Instead of drawing up a dietary, you advise opening the abdomen. No wonder they protest! It will take a lot of explaining, especially as you are not in a position to assert that the danger is immediate, certain and inexorable. Still, it is your duty to insist upon it.

While we are talking abdomen, there is another affection of an insidious type that deserves attention, *viz.*, chronic intestinal obstruction. The subject is generally one past middle life. He has been troubled for some time past with constipation, alternating with occasional attacks of diarrhœa. The belly is distended and rather tender. At the present time there is no passage at all; at most has he passed a little flatus. The pulse is rapid, but firm; the face is pale but not drawn. He has been sick once or twice, bringing up glairy or mucous vomit. He has been taking enemata and purgatives supplied by the local chemist, but all in vain. They are not positively anxious, but they recognise that the bowels must be coaxed to work, and so you are called in. But when, your examination over, you gravely suggest opening the abdomen as the only means of rescuing the patient from the jaws of death, when you invite them to choose between laparotomy, artificial anus, and enterostomy, well, it is for them a bolt from the blue. Your difficulty is increased by the fact that you yourself are not in a position to be dogmatic. You do not know, and therefore cannot state, the exact nature of the obstruction nor the probable result of the intervention, apart from the mere relief of the obstruction. You are obliged to admit your uncertainty, but, all the same, you must insist on an operation.

Then, too, salpingitis; this, too, is a disease the only remedy for which causes many a woman much and dolorous surprise. I am, of course, not referring to the sudden, acute forms of salpingitis which, so to speak, throw the patient upon the operating table, but the slow, insidious forms which undermine the health, which render the sufferer a hopeless invalid subject to persistent discomfort, with interludes of acute pain which keep her in bed, unable to walk or go upstairs, or, it may be, without serious abdominal pain. The patient loses flesh, menstruation is irregular and painful, digestion is upset, and her temper becomes uncertain and irritable. She lingers on in hope that rest, injections and counter-irritation will get the better of her state, but you, the practitioner, know well enough that it is vain to expect anything of the kind. Your knowledge tells you that there is a thickened cord, in all probability containing pus, which can only be got rid of in one way. You can detect its presence by digital exploration, and it is your duty to advise its removal. In nine cases out of ten you will meet with considerable resistance, but you must overcome it if your patient is not to fall a victim to neurasthenia and progressive organic depreciation, with the tomb as its goal.

But it is in certain forms of incipient cancer that the operation becomes of extreme urgency, and the operation must be severe to afford any reasonable prospect of durable success. In spite of recent discoveries, in spite of X-rays and radium, our duty is to advise a radical operation forthwith. Only too naturally the patient hesitates at the prospect of a severe, mutilating operation, but your duty admits of no compromise; it is all or nothing. You must not shrink from your duty; you must be frank, and, if necessary, brutal, for in your hands lies the patient's only hope of safety

Unfortunately, there are certain forms of cancer in which, from no fault of the patient's, you come too late on the scene to be able to use your persuasive powers to advantage. Cancer of the uterine cervix, for instance, is not painful in its early stages, and by the time the symptoms command attention it may be too late.

It would be easy to prolong the list, but these few examples suffice to show what responsibilities we are called upon to assume in the exercise of our profession. These grave decisions, in face of sometimes apparently trivial lesions, are not the least of the difficulties with which you will be confronted, and on your decision and firmness depend not only your own reputation, but the future of the patient.

Note.—*A Clinical Lecture by a well-known teacher appears in each number of this Journal. The lecture for next week will be by Arthur E. Giles, M.D., B.Sc., F.R.C.S., Surgeon to the Chelsea Hospital for Women; Gynæcologist to the Prince of Wales Hospital, Tottenham. Subject: "Diagnostic Aphorisms in Gynæcology."*

ORIGINAL PAPERS.

THE TREATMENT OF INOPERABLE CARCINOMA OF THE UTERUS BY APPLICATION OF HEAT. (a)

By J. F. PERCY, M.D.,
Galesburg, Illinois, U.S.A.

At the present time the treatment of cancer may be easily differentiated into two classes. The first of these is the operable, which applies almost wholly to early manifestations of the disease; and the second, the inoperable, which concerns us most at this time.

Inoperable carcinoma may be attacked through attempts to destroy the possible cause, by vaccines, toxins, serums, etc.; again, by attempts to change the pabulum by which the disease is permitted to progress, such as may be suggested by the theory advanced by Ehrlich, under the name of athrepsia. From the standpoint of the experimental laboratory, the above theories and the work based upon them widen our mental horizon, and stimulate our imagination regarding the whole field of cancer research; but we cannot apply them now, because their value is yet undetermined, and the particular pabulum, or food stuff, which Ehrlich presupposes for growth, is not fully understood.

We do know, however, that the cancer cells can be destroyed by the same agents that will destroy the normal cells; among these may be mentioned caustics, chemicals, actual cautery and freezing. Our problem is to find, in some manner, an agent which will affect the physical properties of the growth in such a way as to kill the cancer cell; if this cannot be done completely, then to retard or inhibit its growth, permitting normal cells to retain their growth and function. Certain agents have been found to which carcinoma is more vulnerable than are normal cells. One of these is radio-activity an its various forms. Unfortunately, the area of application of this agent is limited to such a degree that we are compelled to search for some other element of wider application.

(a) Paper read before the Clinical Congress of Surgeons of North America, in London, July, 1914.

In our study of agents that will inhibit and destroy carcinoma, the first that appeals to us is heat. The history of the ancient and modern use of this method of treating carcinoma is neither unimportant nor insignificant; only our manner of using it has been at fault.

In 1905 Paul Ehrlich suggested to M. Haaland (1) the greater susceptibility of certain strains of mixed, inoculable, malignant material to heat. The experimental work, based upon this fundamental intimation of Ehrlich regarding heat, has not only been interesting, but of great practical value. Haaland showed that carcinoma cells are more vulnerable to heat than are those of sarcoma, and die after an exposure of one-half hour to 44 deg. C. (111.2 deg. F.). It has been demonstrated by Clowes 2) that all tumour cells exposed to a temperature of 45 deg. C. (113 deg. F.) in vitro die.

Loeb (3) has demonstrated the death of sarcoma cells when exposed to a temperature of 45 deg. C. (113 deg. F.) for thirty minutes, while Clowes (3) and Baeslack (3) place it at 44deg. C. (111.2 deg. F.) for the same period of time. Jensen (3) places the vulnerability of cancer cells at 47 deg. C. (116.6 deg. F.) for five minutes.

Lambert (4) has shown a definite relationship of damage between the degree of heat and the time of exposure to both normal and malignant cells. His investigations have demonstrated that sarcoma cells are destroyed when exposed to a temperature of 42.5 deg. C. (108.5 deg. F.) for from twenty-four to forty-eight hours, 43 deg. C. (109.4 deg. F.) for six hours, 44 deg. C. (111.2 deg. F.) for fifty minutes, and 46 deg. C. (114.8 deg. F.) for twenty minutes; while normal connective tissue cells survive these various exposures. M. Doyen has shown that the death-point of carcinoma cells is 55 deg. to 56 deg. C. (132 deg. F.). An identical degree of heat is necessary to destroy the micrococcus neoformans, which he believes is the ætiological factor in cancer.

E. Vidal (5), in a most interesting observation, noted the arrested development of tumours in four patients, with a temperature above 40 deg. C. (104 deg. F.). Fearing that his experience in these cases was a mere coincidence, he daily exposed tumour-bearing mice to temperatures above normal, and found not only that their tumours showed degenerative changes, but that the mice lived longer. A spontaneous lymphosarcoma, which developed in a bitch, also diminished rapidly and finally disappeared, when the temperature rose to 40.8 deg. C. (105.4 deg. F.) after the puncture of the zone of Richet. These observations and experiments of Vidal are startling in their significance, and give tremendous point to his statement that all the methods for treating carcinoma which have come out of the experimental laboratory have no beneficial influence whatever, unless the reaction which they initiate is accompanied by fever.

This is true of all vaccines and toxins, such as the nectrianin of Bra, Doyen's micrococcus neoformans, the toxins of Coley and the vaccine of Otto Schmidt. The experiments of Bier (6) show that the intravenous injection of foreign defibrinated blood raises the body temperature, and this is true also of the use, in the same way, of the colloids of gold, silver and copper. The observation of the older physicians, who noted the disappearance of malignant activity following infection by erysipelas, claims our interest in a new way. Pierre Delbert has confirmed the experiments of Vidal on the deleterious action of increased body temperature in cancer.

Reduced to the simplest statement, our problem in inoperable cancer has always been two-fold: first, to get rid of the gross mass; second, to destroy the progressive metastases. The second point usually loses much of its significance in the overshadowing presence of the primary great mass. If what Vidal and others tell us is true, it is a rational procedure to attack these morbid masses with heat. But a method tending to raise the temperature of the whole body above 40 deg. C. (104 deg. F.) is impracticable, because dangerous. In addition, it is uncertain, and we cannot regulate it. We are compelled, then, to find some method more local in its application which will exert the greatest destructive process on the gross mass of cancer and endanger to a minimum degree the normal connective tissue cells.

The only agents so far found worthy of consideration are hot air, hot water, steam, electro-coagulation, fulguration and actual cautery. Hot water, hot air and steam are shown by Doyen to be of no practical value, because of their slight penetration. Electro-coagulation affects the tissues for a depth of 5 to 8 cm. in two minutes. The rapidity of action, the difficulty of control of the electrode—especially in the cavities—the complicated apparatus necessary, together with the refinement of technic and specialised judgment required of the operator, make this method impracticable in the treatment of the cavity carcinoma. The de Keating-Hart method of fulguration (7), i.e., the sparking from a high frequency current of high tension, after the surgical removal of the bulk of the mass, especially when superficial—is worthy of notice in this connection. In the hands of the originator, by preventing relapses, it has undoubtedly improved the statistics of operative methods in advanced cancer over those where cutting procedures alone have been employed. Durig (8) and Grau, however, insist that the only beneficial result from fulguration is due alone to the heat, and not to any specific action on the tissue cells. It is only just to the originator of this method of using high frequency currents to state that he denies that this is the mode of action in his method. He insists that where heat is obtained in this way, it is due to the reduction in the length of the spark, replacing the tension by thermic effects, which is a mistaken use of fulguration.

The methods just enumerated, in the hands of their originators, have added much to our knowledge of cancer therapy. But the apparatus required to carry out the technic is extensive, complicated and expensive. In addition, to be effective, it demands not only specialised knowledge, but a refinement of judgment that requires more than the average experience.

In the way of comparison, it has been my pleasure to suggest a practical system of applying heat in otherwise inoperable carcinoma of the uterus which has none of the objections that can, with reason, be urged against the methods already enumerated. (9) The penetration of heat by this method can be definitely, although perhaps crudely, determined and regulated. Where the malignant process is at all accessible, the method has almost no limitations. The required apparatus is not only easily portable, but also inexpensive. I refer to the development of heat through a most efficient electric heating iron, which can be perfectly regulated by means of a rheostat, when applied to the involved tissue. With this electric heating iron and my water-cooled speculum, and the vaginal dilator, a maximum penetration and dissemination of heat is obtained in the involved structures. More than this, the low degree of heat which my experiments show to be more effective than the intense heat already mentioned, can be maintained accurately. This low degree of heat does not burn up the cancerous mass, but merely makes it so hot that the hand of the surgeon, encased in a medium weight rubber glove, cannot hold it. When this degree of heat is reached and maintained for from ten to twenty minutes, the cancer cells are absolutely killed, while the normal tissue cells are not injured. The important thing is not to convert the pathology into charcoal. The charcoal, or carbon, thus formed inhibits the further dissemination of heat not only through the cancer mass, but beyond. More than this, when the pathology is converted into charcoal, drainage is prevented for a number of days. This permits of the absorption of a larger quantity of broken down cancer cells than the average of these patients can tolerate; and many of them die as a result of this mistaken method of applying heat. Carbonisation is produced in a few minutes by a cautery heated to a bright cherry red colour. Carbon inhibits the dissemination of heat. To overcome this, still greater degrees of heat are required, which are extremely difficult to control, endangering the rectum, the bladder and the ureters. In another publication (10) I have given the details of some experimental work which well illustrates the practical application of this very important factor. The heating iron, when used through the water-cooled speculum, should not be hot enough to scorch a pledget of white cotton, if laid on the heating iron even for half an hour. No smoke, no smell of burning tissues should issue from the speculum, as would occur if they were being carbonised. The ear placed near the speculum should hear only a gentle simmer or bubbling, while the heating head is in the diseased mass.

My experimental work, and the operation itself, demonstrate that when this " cold iron " is applied to the affected tissues, not only is there much less destruction of normal cells, but a far greater penetration of heat, sufficient to kill carcinoma. Cancer is destroyed when the temperature in the mass is raised to 50 deg. C.—55.5 deg. C. (122 deg. F.—131.9 deg. F.); while the vitality of normal tissues is not changed until the temperature exceeds 55 deg. C. to 60 deg. C. (131 deg. F. to 140 deg. F.). The basic idea, then, of this treatment—and this cannot be too often emphasised—is not cauterisation, but the production and dissemination of heat in the gross primary mass of cancer. There is no other method, or technic, familiar to me that will influence in a destructive way so great an area of malignant tissue, with a minimum amount of harm to the uninvolved structures. This technic, in a tremendously effective way, destroys the primary malignant focus. With this accomplished, the newer methods—especially the X-ray—that have been shown to be of supreme value in the destruction of the small isolated foci, in or just outside of the pelvis, make a combination of effort in the management of these otherwise hopeless cases, most promising in its possibilities. From my experience, I am convinced that it is not always best to attempt to destroy, at one sitting, a large mass of carcinoma. These patients are rarely in the condition which invites long anaesthesia. The application of the heat, to a degree which devitalises the major part of the exuberant over-growth, and rids the patient of her local focus of mixed infection, produces within two weeks a surprisingly beneficial result. This is especially noticeable if cachexia has at all been a marked symptom. A second, or even third application of heat is not only safer, unless the involved structures are small, but it gives the operator a much better opportunity to reach, finally, the outermost confines of the disease.

When my technic in the application of heat in these cases is decided upon, I would strongly advise against the use of the curette, or other operative measures, for the reason that the heat is distributed through the medium of the pathological overgrowth, which we wish to destroy. Heat does not encourage the extension of metastases, while the curette and knife do. Again, scar tissue is not formed after the use of the curette, but it is the usual sequel after the application of the heat; and I have yet to observe the redevelopment of cancer in cicatricial tissue. Where the surgeon believes that a modern total hysterectomy should be the operation of choice in the less extensive forms of uterine carcinoma, I know of no more rational procedure than the methods here outlined, which should precede the final operation, at least by three or four weeks. In a personal case, where this treatment was applied to an active, stinking, bleeding, vegetative-like mass, springing from the craterous edges of a practically destroyed cervix uteri, no evidence of carcinoma was found on serial section eight months afterwards, when the uterus and cervix were removed through the abdomen.

I shall leave the statistics of my results in the treatment of inoperable carcinoma for a future paper. All that may be said at this time is that I believe that a large number of cases, if not practically hopeless when first presenting themselves for treatment, will give approximately fifty per cent. remaining free from recurrence over five years. In addition, my work along this line convinces me that the limits of benefits to be obtained by the application of heat in inoperable carcinoma have not yet been reached.

I am working out a method by which the amount of heat entering both the pathological and normal tissues can be accurately gauged. With this, the degrees of heat in the tissues at various distances from the heating head can also be determined. This will make it more definitely and accurately certain that the required temperature known to destroy cancer is entering the parts involved.

The management of complications, the most serious of which is the prevention of rather late hemorrhages, is a matter of importance. In fifty cases this sequel has followed in two private and in two clinic cases. Only one of these, a private case, has died from the hemorrhage. It will probably prove to be true that the uterine arteries, or, possibly even the internal iliacs, should be tied in every case immediately preceding the treatment by heat.

In mentioning these important problems growing out of the practical application of my method, I do not wish to be understood as minimising the great benefits which this technic has already given to a rather large number of otherwise hopeless cases of inoperable cancer of the cervix and body of the uterus; but rather to express the hope that with the improvements which can undoubtedly be made in the use of heat in cancer, a wider and wider application of this extremely valuable method may be found.

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TYPHOID PERFORATION. (a)

BY DR. GEORGE E. ARMSTRONG, M.D., M.S.,

MR. PRESIDENT AND GENTLEMEN.—In the two Provinces of Quebec and Ontario in Canada, there were, during the five years 1908 to 1912 inclusive, 6,011 deaths from typhoid fever, an average of 1,202 deaths per annum.

In the Province of Alberta during the five years 1909 to 1913 inclusive, there were 852 deaths from typhoid fever, an average of 170 per annum.

In the United States of America during the four years 1909 to 1912 inclusive, there were 45,833 deaths from typhoid fever, an average of 11,458 deaths per annum. The average death-rate was a little over 20 per 100,000 of population.

The responsibility for this enormous waste of human lives cannot be laid at the door of the medical profession. It is a reflection upon the humanitarianism and business acumen of the laity in these countries. Those who succumb to typhoid are among the most promising in the country. The greatest susceptibility is from 15 to 25 years of age. It has again and again been proved to a demonstration that pure water and efficient drainage prevent typhoid. Typhoid can be arrested by an Act of Parliament and by municipal legislation. Regarded as a purely economic question the money spent in removing the causes of typhoid would earn larger dividends than if invested in the best bonds in the world. Why should not municipalities, towns and cities be made as responsible financially for the loss of time and loss of life from a preventable disease like typhoid as are the transportation companies by land and water made responsible for preventable accidents.

Typhoid is still with us, however, and it is still attended by a mortality from several complications, 75 per cent. of which are surgical. It is to one of the most important of the latter that I would ask your attention. One cannot approach the subject of surgical complications of typhoid without an appreciation of the influence of W. W. Keen, who brought this subject so clearly and forcibly before the profession in his book published in 1898.

The incidence of perforation varies in different years and in different epidemics. In Germany perforation is less common than in America. Recent figures embracing 9,713 cases collected in England, Canada and the United States show that more than one-third of the deaths from typhoid are due to perforation. At Johns Hopkins Hospital there were 43 perforations in 1,500 cases, or 1 in 36. In the Pennsylvania Hospital there were 50 perforations in 1,948 cases, or 1 in 39. In the Royal Victoria Hospital, Montreal, there were 83 intestinal perforations in 2,917 cases, or 1 in 35 and two perforations of the gall-bladder. In the Montreal General Hospital there were 110 perforations in 2,494 cases, or 1 in 22½ cases. In the Royal Victoria and Montreal General Hospitals it is sometimes quite impossible to admit all the cases of typhoid that apply. Only the more severe cases are taken in. Again, quite a number of cases are admitted after perforation has occurred.

In 15,224 collected cases there were 544 perforations, or about 1 in 31½. Statistics show perforation to be more common in men than in women. The reason is not obvious. In children perforation is rarer than in adults.

PATHOGENESIS.

Chomel remarks "that the accident is sometimes the result of ulceration, sometimes of a true eschar, and sometimes it is produced by the distension of the intestine, causing the rupture of the tissue weakened by disease." In a specimen in the McGill Museum there are 10 perforations in the ascending colon and sigmoid, probably from distension. I have usually found the perforation near the base of a generally well-defined ulcer. In size it varies from a very small pin-point hole to an opening the size of a lead pencil, Only rarely is it larger. It is always situated nearly directly opposite the mesenteric attachment.

While it is true that the perforation may occur at any point in the stomach, small or large intestine or in the appendix vermiformis, yet, fortunately for the patient and the surgeon, it is found somewhere in the terminal two feet of the ileum in an overwhelming majority of cases.

PROGNOSIS.

That a typhoid perforation not closed by the surgeon is always a fatal complication is as a rule a true statement. The only exceptions are those in which a perforation of the large bowel occurs between the layers of its mesenteric attachment. When this occurs an abscess develops, extra-peritoneally, and may subsequently be opened. In the single case in my series in which this occurred the fistula gradually healed. It is probable that all cases in which a perforation of the small intestine occurs into the peritoneal cavity prove fatal unless recognised and the opening closed. The duration of life after perforation in 134 cases collected by Fitz was as follows:—

Died on the first day	37.3 per cent.
,, ,, second day ..	29.5 ,,
,, in the first week	83.4 ,,
,, ,, second week ..	9 cases.
,, ,, third week.. ..	4 ,,
,, in thirty days ..	1 case.
,, ,, thirty-eight days ..	1 ,,

DIAGNOSIS.

It is easy to establish the fact that a considerable percentage of the mortality in typhoid is due to perforation of the intestine, and also that a goodly number of these cases may be saved by early recognition of the lesion and its closure. The great difficulty is the diagnosis. To get the best results the accident must be recognised early and appropriate treatment be instituted promptly. Here is the great difficulty, the question of early diagnosis. Some of our standard text-books are misleading in their remarks on the diagnosis of typhoid perforation. If it will not be considered too presumptuous for a Colonial to criticise writers in the great educational centres of Great Britain, I would like to say that when a recent edition of Choyce's "Surgery" says that the symptoms that suggest perforation are the sudden onset of acute pain referred to the umbilicus or to the right lower half of the abdomen, with tenderness on pressure and muscular rigidity, most marked in the right lower quadrant of the abdomen, and that there is nausea and vomiting and other symptoms of acute infection, and when Howard in his "Practice of Surgery," issued this year, says the symptoms of typhoid perforation are sudden acute abdominal pain with collapse and fall in the temperature they fail to appreciate the difficulties that surround the question of the diagnosis of typhoid perforation. The occurrence of perforation is but seldom indicated by such well-marked, striking symptoms. Furthermore, a fatal peritonitis may develop in typhoid without any perforation discoverable at autopsy, as reported in the Munich autopsies and in various medical journals.

(a) Paper read before the Clinical Congress of Surgeons of North America, in London, July, 1914.

The first indication that a perforation has occurred is usually pain. It was present in 75 per cent. of this series of 83 cases and absent in 25 per cent. 75 per cent. of them had either sudden crampy pain or sudden persistent pain in the following regions mentioned in order of frequency: generalised, right lower quadrant, umbilical zone, left lower quadrant, epigastrium, and left hypochondrium. In 25 per cent. of these cases the pain was generalised or in the right or left lower quadrants. Often the pain will not be severe enough to impress upon the nurse the need of sending for the doctor unless she has been specially trained in a typhoid ward. An important point in the training of a typhoid nurse is to teach her to send for the interne whenever a typhoid patient complains of abdominal pain.

In 25 per cent. of cases not having pain at onset, the following conditions were found:—

In 11 per cent. toxæmia obscured all signs.
,, 4 per cent. the condition was obscured by severe concurrent hæmorrhage.
4 per cent. were not diagnosed.
1 per cent. had chills.
2 per cent. had rigidity.
4 per cent. had vomiting.

In regard to time, 62 per cent. occurred at night and 38 per cent. in the daytime. 4 per cent. of the cases had definite profuse sweats immediately after the perforation.

The symptom that I would place second because of its constancy and significance is change of expression. The change of appearance in a majority of the cases was quite evident. 65 per cent. showed a very definite alteration, 28 per cent. a gradual change, and 7 per cent. no change. This change in appearance was manifested in a picture of suffering from pain, a sudden pallor, a change from a feeling of comfort to that of distress, a restlessness, cardiac failure, vomiting, painful defæcation, loss of rallying power after hæmorrhage, a chill, profuse sweat, general malaise, an unaccountable change in general condition for the worse, or sometimes a feeling of those in attendance that something had happened that they could not account for.

Tenderness was present in some degree in 88 per cent. of the cases and absent in 12 per cent. of cases.

In 50%it was generalised.
,, 20% ,, limited to the lower abdomen.
,, 16% ,, ,, ,, right lower quadrant.
,, 9% ,, ,, ,, left lower quadrant.
,, 2% ,, ,, ,, right upper quadrant.
,, 1% ,, ,, ,, left upper quadrant.
,, 1% ,, ,, ,, upper abdomen.
,, 1% ,, ,, ,, umbilical zone.

As for time of appearance:—

In 50% it came with pain at the onset.
,, 20% ,, within the first hour.
,, 16% ,, ,, second hour.
,, 5% ,, ,, fourth hour.
,, 2% ,, ,, eighth hour.
,, 2% ,, ,, tenth hour.
,, 2% ,, ,, twelfth hour.
, 1% ,, ,, twenty-fourth hour.

In some cases tenderness is definite from pushing forward the anterior wall of the rectum with the examining finger.

Rigidity in Typhoid Perforation.

85% of cases showed distinct rigidity.
15% ,, ,, did not.

Of this 85% showing rigidity:—

44% showed it from onset of trouble.
22% ,, ,, within the first hour.
8% ,, ,, ,, ,, second hour.
4% ,, ,, ,, ,, third hour.
6% ,, ,, ,, ,, fourth hour.
6% ,, ,, ,, ,, sixth hour.
8% ,, ,, ,, ,, 24th hour.
2% ,, ,, ,, ,, 72nd hour.

Location.

39%showed generalised rigidity.
22% ,, rigidity of the right lower quadrant.
22% ,, ,, ,, lower half of abdomen.
8% ,, ,, ,, right upper abdomen.
6% ,, ,, ,, left upper abdomen.
4% ,, ,, ,, left lower abdomen.

In a very few instances the term "resistance" would more correctly designate the condition present.

Little or no value can be attached to the absence of liver dulness. If the area of liver dulness has been noted from day to day and then suddenly disappears in association with abdominal pain, it is significant. It is valueless in a distended abdomen. It was obliterated in 45 per cent., not changed in 16 per cent., and not mentioned in 39 per cent.

The fall in temperature so often spoken of rarely occurred. Occasionally there was a fall of one or two degrees in six or eight hours, but only in a few cases did any spectacular drop, such as from 103° to normal, take place. In one case the temperature rose from normal to 104° in two hours.

The pulse changes were always clear. A rapid change from slow and good volume to rapid and small often occurred. In 95 per cent. of the cases the pulse quickened. Of the change in blood pressure I cannot speak.

Those who have seen many typhoid perforations will appreciate Fitz's statement that perforation of the intestine in typhoid fever may take place without any suggestive symptoms and that suggestive—even so-called characteristic—symptoms may occur without any perforation having taken place.

In the text-book perforations diagnosis is easy, but, if we are to save a large percentage of these unfortunate patients we must detect the accident in its most insidious form.

Again, it is not necessarily a reflection on the diagnostic skill and sound judgment when the abdomen is opened after careful consideration of the symptoms present by two or three clinicians and no perforation is found. It would seem that this may happen occasionally if conscientious attempt is made to recognise perforation as soon as it occurs. One case is on record in which the abdomen was opened twice in the same patient without finding any perforation! The same abdomen was later opened a third time, the perforation found and the patient's life saved. We cannot always afford to wait in these cases until the diagnosis is absolutely definite and assured.

What symptoms call for immediate abdominal incision, or, rather, what are the minimum of signs that may demand surgical intervention? Pain, persistent; definite change for the worse in the expression of the patient; tenderness either abdominal or rectal; rounding up of the abdomen; and increased resistance to pressure. If these symptoms are present, even if the temperature and pulse are not decidedly altered, nor vomiting present, the likelihood of a perforation is very great.

Local anæsthesia has very materially altered our attitude towards early operations. It is no longer necessary to administer a general anæsthetic. The abdomen can be quite well opened under local anæsthesia without causing the patient any pain whatever. The closing of a typhoid perforation is one of the simplest operations in surgery; one that can quite well be performed by anyone capable of carrying out a perfect surgical *technique*. A 1 per cent. solution of novocaine with the addition of two drops of adrenalin to the drachm is thoroughly satisfactory and may be used freely. Inject first the skin and subcutaneous tissue, and then, with a short needle one inch long, penetrate the deeper muscular layers along the line of incision. Either a gridiron incision or one along the outer border of the right rectus answers admirably. The perforation is nearly always found in the terminal 12 or 24 inches of the ileum. It is very easily found. A couple of through and through sutures usually suffice to close the opening and then one or two rows of fine Lembert suture complete the operation on the intestine. One should always look for a second or possibly a third perforation. These are seldom found, but not uncommonly some of the ulcers in the neighbouring portion of the ileum will present a very thin, necrotic-looking base. It is a good practice to infold such with a single row of Lembert sutures as a precaution against further perforation occurring after the abdomen is closed. Resection of an ulcerated portion of intestine in typhoid is rarely indicated, and should be reserved for the skilled operator and unusually threatening conditions.

When the abdomen is opened the presence of perforation is generally made clear by the presence of fluid, lymph, or the escape of a little gas. Should none of these evidences be observed, do not close the abdomen without examining at least the terminal two feet of the ileum. It may be that a small pin-head perforation is temporarily closed by a tag of omentum. I have found this condition present in three of my cases. Of course, such cases give a most favourable prognosis.

The percentage of recoveries is gradually increasing. Von Layden in 1884 suggested that the only rational way of treating perforations of the stomach and intestines was surgical. In the same year Miculicz closed a typhoid perforation. The patient, a man, æt. 40, recovered. Fourteen years later, Keen collected 83 cases with a recovery percentage of 19.36. In the Royal Victoria and Montreal General Hospitals, 140 perforations have been closed and 38 have recovered, or 27.14 per cent. These figures include the work of all the surgeons attached to the hospitals. The figures are not large, but I think they represent 38 lives saved. The other cases of perforation were not operated upon for three reasons, chiefly, viz., not diagnosed; desperate conditions that offered no chance of success; and refusal of patients, parents or guardian to allow any operation.

It is sometimes very discouraging, viz., my first six cases died, and then I was about ready to give it up. I succeeded in saving my seventh case and from that time recoveries have occurred more and more frequently. From January, 1909, to June, 1914, I closed 22 typhoid perforations, and 11 recovered, or 50 per cent. An important point is to let the house staff feel that it is a reflection on their professional attainments to overlook a perforation. When once they really appreciate that fact cases are sent to the operating-room promptly.

THE TRANSMISSION OF FOOT AND MOUTH DISEASE TO MAN.

By PROF. E. BOISMOREAU, M.D.,

Of the Faculty of Medicine of Paris.

[SPECIALLY REPORTED FOR THIS JOURNAL.]

IT is perhaps not generally recognised that foot and mouth disease in animals is capable of transmission to human beings, and as I happen to have had special opportunities of witnessing the supervention of the disease in man in the course of a widespread epidemic in animals I think it worth while to place the facts on record.

The epidemic started in 1912, and although certain precautions were enforced it spread far and wide, attaining its maximum intensity in July and August of that year. It was then that I met with cases in my practice and I cannot do better than reproduce my notes:—

CASE I.—An infant, æt. 15 months, was brought to me in August, 1912, on account of some difficulty in swallowing which led it to refuse food. Methodical inspection revealed nothing of any particular interest beyond a little bronchitis, but the rectal temperature was 103.8° F. Turning my attention to the buccal cavity I noticed at once that the gums, mucous membrane and tongue were the seat of a vesicular eruption, the vesicles being rounded in shape with a pink base. Some of them had ruptured, leaving tiny ulcers the floor of which was yellowish white. The ulcerated surfaces were very tender to the touch, the breath was very offensive, and the mucous membranes appeared to be thickened. I counted upwards of thirty of these vesicles. The submaxillary glands were slightly swollen and tender and the urine contained a trace of albumen.

I touched the ulcers with chloride of zinc and administered anti-diphtheritic serum by the mouth. Improvement set in the day after commencing the treatment and recovery ensued in four or five days.

The infection appeared to have been conveyed by milk from cows that had recently been suffering from foot and mouth disease, in spite of the fact, stoutly maintained by the mother, that the child had taken no milk that had not been boiled.

Case 2.—Man, æt. 35, agricultural labourer, had been attending sick cattle, but had not drunk any milk. Temperature 100.8° F. Complained of headache with pain in the back and limbs. The mouth, dry to begin with, was now running (salivation) and he experienced some difficulty in swallowing. Exploration of the mouth showed a few characteristic vesicles on the tonsils with a little glandular enlargement under the lower jaw. Chlorate of potash internally and locally, was followed by improvement, but a few days later a small abscess formed on the left big toe, which soon healed. The patient recovered without having been obliged to give up work.

The other cases were all very much the same, so I need not relate them in detail. My observations seem to me to justify the following conclusions :—

1. Milk seems to be the vehicle of contagion, and it is evidently dangerous to take cow's milk in times of epidemic, even if the animals are apparently healthy unless it has been well boiled. In my first case, that of the infant, it will be noted that contamination took place before the animals displayed recognisable signs of disease.

2. Milk, however, is evidently not the only means of transmission, for in my second case the patient had not drunk any milk for a long time (French peasants as a rule fight shy of milk). He no doubt contracted the disease by handling the cattle and eating his food with unwashed hands, the saliva and pus of sick animals being very contagious.

Symptoms.—The period of incubation would seem to be five or six days. There is a slight rise of temperature with dryness of the mouth followed by salivation and trifling disturbance of digestion. In the course of a few days we get aphthous stomatitis, which may undergo transformation into tonsillitis or aphthous sore throat. Should the nature of the disease be ovelooked or in the absence of adequate treatment, constitutional troubles may supervene ; a paratyphoid state, renal complications, sub-maxillary adenitis, &c. It is at this stage that we meet with abscesses of the feet and hands which, however, in my own experience only occurred in one instance, though I have heard of graver cases in the neighbourhood.

Diagnosis.—Whenever foot and mouth disease is epidemic among cattle, we must be on the lookout for instances of contagion in man. In the earliest stage no diagnosis is possible, but as soon as aphthous stomatitis makes its appearance we have only to distinguish it from ulcerative stomatitis, thrush, syphilitic lesions, scurvy and diphtheria.

In ulcerative stomatitis there is no true vesicle, merely a raising up of the epithelium by infiltration of the subjacent tissues and the ulcer becomes visible on scraping away the epithelium. These lesions usually commence on the gums over the last molar teeth. Then, too, the lesions are much more extensive and deeper than in aphthous stomatitis (foot and mouth disease).

Thrush is recognised by features which are familiar to all of us—the little patches of milky-white, like flakes of coagulated milk, are quite different in appearance from the characteristic little ulcers covered with a thin layer of epithelium, met with in the disease under consideration.

There ought to be no difficulty in distinguishing it from syphilitic lesions which are well known to us and the same remark applies to mercurial stomatitis. In doubtful cases it may be advisable to treat the local lesions after instituting anti-syphilitic treatment. In the course of an epidemic no doubt can rise except in obviously syphilitic subjects, but the primary chancre and mucous patches hardly expose us to the risk of error. Apart from the constitutional symptoms of scurvy, the appearance of scorbutic gingivo-stomatitis is very characteristic, the wine-blue gum line, the ecchymoses and induration give their special stamp and the patient's aspect is quite different.

Diphtheria rarely limits itself to the buccal mucous membrane and the false membrane can readily be distinguished from the ulcerations met with in foot and mouth disease. In case of doubt bacteriological examination will settle the matter.

Acute tuberculosis of the pharynx or mouth is painful and is accompanied by intense dysphagia. The *Leptotrix mycosis* is easily identified.

Should the manifestations be limited to the hands and feet diagnosis might be difficult in the absence of the characteristic stomatitis.

Foot and mouth disease in human beings does not seem to be a grave affection, but we must distinguish between its supervention in children and in adults. In the former it may give rise to serious constitutional disturbances. In my first case the infant's plight for twenty-four hours was most alarming. The gravity of the attack no doubt depends greatly upon the severity of the infection so that infants fed upon the unboiled milk of sick cows are liable to very serious manifestations.

Prophylaxis and Treatment.—Refuse all milk from a contaminated farm, and lest it should be imperfectly sterilised, do not advise boiling such milk for human consumption. An animal may be sickening for the disease without showing any outward and visible signs so that in presence of an epidemic they are all potentially dangerous. Farmers should be informed of the necessity for cleanliness in manipulating milk and for their own sake the sick animals should be carefully isolated from the healthy stock and the hands of attendants frequently washed in a 1 in 1,000 solution of oxycyanide of mercury. All manure to be burned or buried deeply after watering with a powerful antiseptic. In epidemic times we must beware of butter.

When foot and mouth disease occurs in human beings we must remember that it is apt to be much more severe in the young. Anti-diphtheric serum by the mouth or by injection yields good results. The ulcers should be cauterised with chloride of zinc, 1 in 30, and the bowels kept open.

In adults, gargling with chlorate of potash or borax, frequent lavage of the mouth with diluted peroxide of hydrogen, either alone or associated with thymol.

There is one point to which I should like to call attention, viz., that the country doctor ought to have at any rate a nodding acquaintance with animal pathology is order that he may protect human beings from contagion. Foot and mouth disease is by no means the only disease that is transmissible from animal to man; indeed, it seems to be one of the least disastrous.

THE MEDICAL HISTORY OF ABERDEEN. (a)

By SIR ALEXANDER OGSTON, K.C.V.O., M.D.,

Consulting Surgeon to the Aberdeen Royal Infirmary; Surgeon-in-Ordinary to H.M. the King in Scotland.

AFTER leaving the physical conditions and general characteristics of the inhabitants of Aberdeen and district in the middle and latter part of the fifteenth century, Sir Alexander Ogston proceeded as follows:—

Some time about the year 1483 there came to Aberdeen, in all probability by land, one who was destined to be its greatest benefactor, William Elphinstone, who had just been nominated to the bishopric of the diocese. It is difficult to reconcile the dates given by his biographers, but it must have been within a year or two of that time, and Elphinstone was a man approaching 60 years of age, when the churchmen, nobles, and citizens alike went out in procession, with music, to meet him and do honour on the occasion to one whose advent they had greatly desired. We possess a portrait of him in King's College in Old Aberdeen, which shows, I think, that he was a person of not more than medium height, with a sweet benevolent expression of face; his features indicating that he was a healthy man who had led a temperate life, and being unmarked by any lines that point, as do so many portraits of Scots of that period, to hardness or unscrupulousness, but showing thoughtfulness, earnestness, and goodness; altogether a beautiful character, in every respect coinciding with what we otherwise know of him. If one were to judge from the portrait alone, one would perhaps rather rank him among dreamers and visionaries, than among men of affairs.

Before he came to Aberdeen as its Bishop, Elphinstone had already occupied a post of high preferment in the diocese of Glasgow, and those were days which soon tested the characters of men, particularly of such as held high positions in the Church, both in England and Scotland. The ancient Church was being threatened and the seeds of heresy were springing up in both countries. Hence the ecclesiastical dignitaries had found it expedient, in the beginning of the century, to burn the free-thinking James Resby at Perth, and only three years before Elphinstone was born the Bohemian envoy Paul Craw was also burnt at the stake for his doctrines. Moreover, at the very date we speak of, the thirty "Lollards of Kyle" were already giving trouble, and a year or two later were to be arraigned before King James and Archbishop Blackadder, of Glasgow, on the charge of heresy, and probably they would have been burnt too had not the good-natured King turned the whole matter into a jest. It was indeed a thorny problem for the priesthood how to deal with such disturbing opinions, and it is greatly to the honour of Bishop Elphinstone that he sought what he believed to be the more excellent way to encounter heresy than by an *auto da fe*.

There are few beyond our walls who realise how magnificent a gift Elphinstone bestowed on Aberdeen and the North of Scotland when he founded our university, and there are still fewer who appreciate the wisdom he displayed in its organisation. The bishop lived in an era of intellectual restlessness. From Italy and Germany, as we know, the "New Learning" was spreading, and altered ideas of morals and religion were being accepted in England and Scotland as the Middle Ages gave place to the Renaissance, but all that must have been familiar to Elphinstone, and caused him and the other prelates of the ancient Scottish Church much disquietude. The appropriate remedy was to be sought, so he believed, in a wider development of learning and the better instruction of the priesthood of his Church, while, if these objects were to be carried into effect, the only possible means were the establishment of a "Studium Generale," or, in modern phrase, a university. Eighty years previously Bishop Wardlaw had been the means of founding such a place of study in St. Andrews, where it proved successful; while thirty-seven years after that Bishop Turnbull (or, according to Boece, Bishop Dursdeir) had done a similar service for Glasgow, where it had been less satisfactory. In the latter university Elphinstone himself had been a graduate in Arts as well as Rector, and he therefore possessed the knowledge requisite to avoid the errors which had caused it to be a comparative failure.

THE FOUNDATION OF KING'S COLLEGE.

As Lord Privy Seal to King James IV., he participated in his Sovereign's most intimate counsels, and there could hardly have been a ruler to whom the bishop might have applied with more hope of finding sympathy with his plans for the intellectual improvement of Aberdeen, and accordingly we find the King writing, in terms inspired doubtless by Elphinstone, to the Pope for his authority to found the university. Unfortunately, no traces of King James's letter, or of any correspondence of Elphinstone with the Holy See, relating to the proposed creation of the university, now exist in the archives of the Vatican, for they would likely have revealed much that would have been instructive about the condition of Scotland. But what their terms were may be inferred from the wording of Alexander VI.'s Bull, which bears the date of February 4th, 1494. They are that Old Aberdeen was a centre of a district inhabited by ignorant and nearly savage men, many of whom were desirous of being taught, but were destitute of instructors, and were separated by dangerous and arduous ways from those who could impart knowledge, while it was nevertheless possessed of a good climate and fertile soil; and, finally, that, owing to unfavourable local conditions, the ministrations of the Church could hardly be carried on. Almost exactly a year later than this Bull, on February 5th, 1495, the Pope gave the first donation to the university of the revenues of the Hospital of St. Germanus in East Lothian, which had been attached to the diocese of St. Andrews, but had fallen into disuse, and these were to form an endowment for the maintenance of the three faculties most nearly connected with instruction in religion. Three weeks later still, armed with these documents, Elphinstone published his proclamation that the university was now established; and the date of this, February 25th,

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(a) Abstract of Presidential Address delivered at the 82nd Annual Meeting of the British Medical Association, held in Aberdeen, July, 1914.

1496, is the real date of the birth of the University of Aberdeen.

At this point we pause to hold up to admiration the great wisdom of the bishop in respect to the study of medicine. Not a single university in the British Islands had up to that time, we believe, seriously set itself to establish a teaching Medical Faculty as part of its machinery; and indeed this is not to be marvelled at. The profession, or rather trade, of medicine had sunk very low, particularly in Scotland, and the specimens of the physicians to be met with there would not have encouraged an ordinary mind to provide a faculty for them in a university. The bishop must have been personally acquainted with two of the Court physicians of his former master King James III.—namely, William Scheves, who flourished about 1472, and was acceptable to James on account of his knowledge of astrology; a reptile who schemed for the deposition of Bishop Graham of St. Andrews, successor to Kennedy, so effectually that he himself stepped into his shoes in 1478; and also his successor in the King's favour, Dr. Andrews, likewise an astrologer, in 1479, who, as it proved, lost his master both his life and kingdom by some pretended message from the stars warning him against his brothers, the Earl of Mar, and Albany, "the father of chivalry." Whether or not Elphinstone was one of the small body of scholars who were acquainted with Greek, and knew or had heard of the writings of Hippocrates, Galen, and Aretæus, which were then beginning to be translated into Latin on the Continent, and to revive the science of medicine, but were unknown in Britain, we cannot pretend to say, though it seems probable enough. But his clear vision saw, what most of his contemporaries did not discern, that medicine, like other branches of knowledge, was likely to share the impetus resulting from the "New Learning," and not only was a proviso introduced into the Bull founding the university that there should be a faculty "tam in Theologia ac iure Canonico et Civili, necnon Medicina et Artibus liberalibus quam quavis alia licita facultate," but he was so concerned about the interests of medicine that he procured from James, within a year of the inception of the university, a charter which, while repeating the Pope's injunctions about the teaching of theology, civil and canon law, medicine, and arts, gifted to God the Omnipotent, the most glorious Virgin Mary, all the Saints, the University, and to a graduated doctor in the faculty of medicine, the sum of £12 6s. yearly, thus supplying the deficiency in the Pope's endowment. From this charter, and the King's co-operation in founding the university, it came eventually to be called King's College, as Elphinstone had always wished it to be named.

Early Aberdeen Medical Worthies.

The medical seed which Elphinstone planted in his college did not at once spring up into full vegetation. It could not have been expected to do so under the conditions then prevailing. The English masters of medicine had not yet arisen; the scientific foundations on which modern medicine rests were not even begun to be laid. Linacre had not then introduced the works of the ancient Greek physicians to the profession in this country, and the great Harvey did not appear until a generation later. Physicians were barely more than herbalists, and surgeons than barbers. We have mentioned some of the positions attained to by those who added quackery and astrology to their healing functions; but for the honest practitioners knowledge was but obscurity, and their recompense small. I am indebted to our Public Librarian, Mr. G. M. Fraser, for information as to the status of doctors in Aberdeen about the time of Elphinstone. In 1417 there was in the city an English physician of the name of John, but he does not appear to have found his practice very satisfactory, if one may judge from the solitary record of him which remains—that he sold his crofts beside the Stockrud in the Denburn, at the end of the castrum of John de Ressivat, which was called Kilecroft, for four shillings. The first "Mediciner," or Professor of Medicine, in the university was James Cuming, who before 1503 had been selected by Elphinstone and appointed to lecture on that subject. Elphinstone built him a house, as he did for the other professors, and it was probably through the bishop's good offices that the city assisted in providing him with a more adequate salary than he received from King James's benefaction, for it is recorded that in the year 1501 the aldermen, baillies, council, and community consented to give him ten marks yearly, "ave and until they promote him to a half of a net's fishing in the Dee, free of entry money, he paying for it the usual rent, and engaging that he, his wife, children, and household, shall personally reside within the burgh, go and visit the sick, and show them his medicines, they paying for them, but the town is to pay nothing till Cuming has actually come to reside in it." From this it may be seen that Cuming was not a priest, but a regular medical graduate and a married man, with his patients to look after as well as his university duties. It does not detract from Elphinstone's merit in taking specific steps to ensure that medicine should have a due place in his university, that another Scottish "Stadium Generale," even earlier than that in Aberdeen, should have had a similar authority to establish regular medical instruction conferred on it at its commencement. As early as 1413 St. Andrews had that right conceded to it in its Bull of Foundation; and possibly the licence for a Faculty of Medicine may have been a not unusual portion of the formula which the Popes employed when bestowing their sanction on universities modelled on those of Paris and Bologna. Glasgow University, however, had no such privilege, only three faculties—Theology, Law and Arts—having been specified in its Bull.

The Foundation of Marischal College.

It may be interesting—and, at any rate, it enhances our appreciation of Elphinstone—to remark that when the second university of Aberdeen, that of Marischal College, was founded, in rivalry to the other one, a hundred years later, no provision was made in it for a Faculty of Medicine. It was instituted under the sour atmosphere of Calvinistic reform, and concerned itself more with religion and politics than with science. What we have said above regarding some only of the many claims which Elphinstone has to be honoured is no more than a just tribute to the memory of a truly great man, whose marvellous wisdom and prevision it is a duty to acknowledge; it is a tribute heartily paid by us all, whether we were alumni of King's or Marischal Universities, now happily fused into one. But here our brief sketch must stop. Worthily to tell of the after-history of the Aberdeen Universities and our medical school would demand greater eloquence than Nature has allotted to me, but a visit to the beautiful window in the Mitchell Hall of Marischal College will, I am sure, add an interest to your visit in this city, by calling to your minds a few of the men whom they have sent forth, whose names are known wherever the English tongue is spoken, while there are others, and these not a few, whose memories are cherished by at least every well-informed inhabitant of this district, men whose deeds and works have been such that Scotland, and even

England, would be shorn of a portion of their glory were their names to be deleted from the rolls of fame of our common fatherland.

INTERNAL DERANGEMENTS OF(a) THE KNEE.

By ROBERT JONES, F.R.C.S.I. (Hon.), F.R.C.S.E., Ch.M., Liverpool,

Lecturer on Orthopædic Surgery, Liverpool University.

When your indefatigable and most persuasive secretary commanded me to deliver a short address before this large and representative body of surgeons I was elated by the honour, but oppressed by the responsibility. Dr. Martin told me that all I had to do was to relate my experiences, both tersely and authoritatively, upon any subject, and to show pictures. The sad feeling I have, gentlemen, is that twenty years ago I could have been as dogmatic and authoritative as one wished—for at that time I was less conscious of the need of experience.

I have chosen the subject of derangement of the knee joint because comparatively so little has been written about it in your own country, and this has always been a matter of great surprise to me, for your games, like our own, are rough, and we in England know, to our cost, that your youth are very skilled and very strenuous. I am credibly informed that the anatomy of their knee joints differs but little from our own, and I am forced to conclude either that their cartilages are more securely placed than ours or, which is most unlikely, that the condition is not so generally recognised as it should be. When I mention to you that I have explored the knee joint in search of mechanical derangement on considerably over 1,000 occasions, and that surgeons all over England are adding their large experiences to our literature, it seems perhaps appropriate that I should endeavour to place before you some practical points which may be helpful both in making clear the diagnosis and in simplifying the treatment.

By far the most common derangement of the knee is injury to the internal semilunar cartilage. It occurs eight times as often as does injury to the external meniscus. The internal cartilage is more firmly fixed and is not allowed the give and take movement vouchsafed the external, and in addition it bears a greater strain during the normal movements of the joints, often becoming thinned and frayed along its inner margin. The line of force is carried through the inner side of the knee in the normal relation of the femur to the tibia, while the abducted position of the foot, when exaggerated, produces outward rotation of the leg. The disproportion may be also due to the shape of the internal articular surface of the tibia, which allows the internal condyle of the femur to glide backwards: thus the range of internal rotation of the femur on the tibia, which is a direct strain on the semilunar, is greater than that of external rotation. It is well to remember how rarely the external cartilage is displaced, in view of the fact that displacement of the internal semilunar will at times give rise to symptoms on the outer side of the joint.

We must also remember that in nearly all cases the cartilage is displaced inwards, and on those rare occasions where a protrusion has been felt from the outside it is due to hæmorrhage following a tear, a localised bruising of tissue or a buckling of cartilage, accompanied by effusion which gives rise to an irregular outline of the articular margin.

The most constant symptom of a displaced or fractured semilunar is a sudden inability to extend the knee. This generally comes on immediately after injury, but I have seen many cases where no story of locking could be obtained as occurring at the time of accident, although it has occurred at varying periods later. This may sometimes only appear so because of the difficulty an injured patient has in analysing his symptoms. Avoiding this fallacy, we may be assured that in an appreciable number of cases the locking is for the first time complained of long after the initial injury. This fact is important from its legal aspect. The most frequent cause of the displacement or fracture is strain thrown on the internal lateral ligament while the knee is flexed and the tibia rotated outwards. In rare instances I have known a displacement to occur while the knee is fully extended. The force necessary to cause the derangement in a first injury is usually severe and the pain is acute. The injury may often be met with on the football field. The athlete drops, rolls on the ground, nursing his knee. Assisted, he hobbles off the ground with his knee flexed. When he arrives home the joint is painful and distended. If the cartilage is still displaced its reduction gives considerable relief from pain. The tender points of pressure are found over the internal lateral ligament and over the anterior horn of the internal semilunar. Any attempt to abduct the limb at the knee is acutely painful. Forced extension of the knee is painful over the site of displacement. I maintain that if an injured semilunar is rationally treated after its initial displacement it stands a good chance of being completely cured—a much better chance than it does at any later period. If the reduction be immediate, efficient, and the limb be kept fully extended, there is every reason to hope for good union. The first displacement is not often accompanied by any degenerative change; reduction, however, must be absolute. All movements of the cartilage must be prevented until union of the torn structures is complete, and no lateral strain must be allowed until the lateral ligament, so often injured, has had time to effect a recovery. There are many ways of reducing a cartilage, but if no anæsthetic be used I have always thought it wise to summon the assistance of the patient himself. I first fully flex his knee and rotate it inwards. I then tell him at the count of "three" to forciby extend his own knee while we help him by pressure from above. In this way he materially assists the surgeon and simplifies the reduction. I often in this way reduce displacements of several weeks' duration, and the reduction can usually be felt by the surgeon. If the displacement be corrected, the patient usually knows definitely and at once, and the surgeon, if wise, will abide by his verdict. If the patient tells you the cartilage is still out, he is generally right, and it is best to believe him. The knee should remain fully extended after reduction in all recent displacements. If the knee does not voluntarily remain completely extended, the displacement is not corrected. Such a joint, with a clear history of semilunar injury and strained or ruptured internal lateral ligament, should be treated by complete rest in full extension for four or five weeks. Instead of this the patient is usually allowed to get up and walk in a week or a fortnight. This is a grave mistake, and in a majority of instances lays the foundation for a series of recurrences. The cartilages can only be retained in a fixed position when the limb is fully extended; they participate in all rotary and lateral movements of the joint; rest of the limb in the fully extended position is therefore indicated, and as long as the effusion lasts the patient should be recumbent. Prolonged effusion relaxes by elongation of all the protective structures of the joint; we should therefore aspirate if absorption be retarded. Elongation of the quadriceps with a subsequent weak knee is closely associated with prolonged and recurrent effusions. Massage can be employed while the knee is being rested in extension, and it is still more valuable to encourage the patient to practise contracting his quadriceps without flexing the joint. I am sorry to dwell so long upon the treatment of the initial lesion, but it is perhaps the most important point I have to suggest, and perhaps the most neglected. Unfortunately, many of us become obsessed with the alleged advantages of a hurried convalescence and the illusory fears of adhesions. They are only snares for the unwary. A little common sense should help us to realise that the best way to promote the healing of torn structures is not to put them on continual or even occasional strain. These arguments obviously do not avail us when dealing with recurring displacements.

(a) Short Address to the Clinical Congress of Surgeons of North America, London, Tuesday, July 28th, 1914.

When the patient is up we should guard his internal lateral ligament from the strain during walking by directing him to walk with his toe slightly turned in and his foot inverted. This is made easy by raising the heel of his boot a third of an inch on the inner side to deviate body weight from the inner to the outer lateral ligament, just as we would do in an early case of knock-knee.

It is more common to see the case when the acute symptoms are over or when several recurrences have taken place, and we have to depend then upon the history, which is usually definite enough. First we hear of an injury—it may be severe or very slight—it usually refers to abduction of the foot, to flexion and external rotation of the tibia. Locking of the knee may have occurred on the first occasion or not—synovitis practically *always* does—but even when locking has not occurred, a giving way or slipping is referred to. The story of a reduction makes the diagnosis complete. If the knee be examined a few weeks after the accident, the effusion will have gone, but there is often pain on pressure over the internal lateral ligament and above the tibial margin over the anterior horn of the semilunar. Pain is frequently felt in front of the joint on slight hyper-extension of the knee. At a still later stage recurrences and fresh effusions may have occurred, accompanied by locking of the joint, the pain on each occasion being capable of definite localisation. Locking is the most definite and reliable symptom, and unless it occurs an element of doubt must always remain. On exploring the knee one frequently finds a fractured or displaced semilunar where there has been no clear history of locking, but the discovery is made, if not with surprise, with a distinct sense of relief. The patient will often only be prepared to admit to a something yielding on the inner side of the knee which gives him a sense of insecurity. This may involve only a momentary inconvenience, or it may occasionally be accompanied by synovitis. He may state that he feels something slip in and out, merely giving him a sense of insecurity. However these symptoms may differ, the one constant fact should remain, namely, that the patient is always definitely clear that the sensation does not change from place to place. The various displacements are often said to be accompanied by a click.

There is no time to deal with the exceptional case which makes the surgery of the knee joint so fascinating. It is often impossible to diagnose accurately without an operation. Among such abnormal cases I have found the external cartilage on the inner side of the knee, and I have found the fractured end of an internal cartilage lying on the outer side just internal to the external lateral ligament; also cartilages so split up that different segments of the same cartilage would become displaced at separate times, giving rise to distinctive symptoms. Frequently I have found two separate lesions, either of which would account for the symptoms, and unless both were rectified the operation might have failed. Sometimes fringes and lipomata and pedunculated semi-detached bodies have been present when I have expected a displaced cartilage, and I have sometimes even had to close my wound without having remedied any defect. These confessions show you that the knee is sometimes as secretive as the abdomen.

Although these surprises take place, the diagnosis of a displaced semilunar is comparatively a simple matter in most cases. It is liable to be confused with certain pathological conditions, of which the most common are synovial fringes, loose bodies, lipomata, and extra-articular osteomata.

The symptoms are less acute in their primary onset in synovial fringes; the pain is quite local and is not situated definitely in the internal lateral ligament. Creaking in the joint is common, and effusion almost invariably follows each nipping. There is usually in the recurrent case a thickening on each side of the ligament of the patella due to hypertrophy of the post-patellar pad of fat. One may expect to find synovial fringes attached to a post-patellar pad in cases of recurrent synovitis of the knee where the pad is found thickened and where occasional twinges occur in front of the joint.

Loose bodies lock the knee sometimes, but usually only for a brief moment, and the symptoms, although sharp, are not acute. They can always be differentiated, because, unless pedunculated, they can be isolated in different parts of the joint, although they usually have a favourite resting place. They can generally be demonstrated by radiography. I have known lipomata to lock the knee, but the symptoms they produce are rarely acute. They are often accompanied by painless effusions, and can generally be felt in the pouches.

An osteoma can usually be detected by careful examination. It can be felt and radiographed. It is the means of locking a joint when a muscle or tendon slips over it, but the locking is never accompanied by effusion.

There is a type of knee which clicks on full extension, and wherever you place your finger the clicking seems immediately under it. This is sometimes due to a nodular condition of the anterior portion of the semilunar, but often it will be found associated with a slipping in and out of the external cartilage, very clearly to be felt by placing the finger in the depression between the bones.

I hold decided views on the subject of operation. I refuse to operate upon any case whom I see immediately after the first displacement, as so large a proportion of such cases get well under appropriate treatment; nor do I encourage operation in cases where the recurrent trouble is painless and is never followed by effusion in the joint. I strongly advocate operation where the recurrence is sometimes followed by acute symptoms, and I encourage it in all recurrent cases where a strenuous athletic life is a means of livelihood or a physical necessity. Operation is a positive necessity in the case of men who work among moving machinery or stand in positions where a yielding knee may mean disaster. I have operated upon patients from twelve to sixty years; age, therefore, is not a contra-indication.

An argument in favour of operation is the occurrence of tubercle and so-called rheumatoid trouble as a direct result of the irritation of a displaced cartilage. I have published several such instances.

If I decide to operate, I prefer to do so with the knee flexed to right angles, so that it need not be further flexed during the operation. I have a very real dread of accidental infection of a knee joint, for it may mean the loss of a limb. Further, I consider a knee which has been the seat of trauma as very susceptible to infection, and am therefore careful not to operate during the presence of effusion nor to move it during operation for fear of the ingress of air or dust. The most convenient way is to have the limb hanging in flexion over the end of the operating table. Some thicknesses of gauze, squeezed out of a solution of biniodide of mercury, is wrapped round the joint, and the incision is made through the gauze, the cut edges of which are fixed into the wound. In this position it is not necessary, excepting in very stout people, to make the incision longer than an inch and a half. The incision I now employ is nearly transverse, commencing just behind the ligament of the patella and traversing slightly above the tibial border, taking care to spare the internal lateral ligament from injury. I am often consulted by patients whose knees have remained weak after operation. In such cases it often appears that the surgeon has carried his incision so far back as to inflict damage upon the lateral ligament. Pressure over the ligament often causes pain, the cicatrix in the ligament being stretched and tender—a condition which only requires complete rest from strain for a complete recovery to follow. Through this small opening a most excellent view can be obtained of the joint, the interior of which is then inspected with the aid of retractors. The finger should never enter the joint. Neither the surgeon nor his assistant should touch the wound except with sterile instruments; the sutures for the capsule should be manipulated with forceps, the edges of the capsule being secured by a blanket stitch. The cartilage may be found in almost any conceivable position. It may be split along its inner margin; it may be fractured; it may be detached anteriorly; it may be turned inwards like a bucket handle with its convexity inwards; it may be nodular; the posterior part may be in front; the anterior portion may be loose and nodular; it may be attached at its extremities and free along the whole part of its outer border; it may be firmly fixed with its inner border frayed and serrated; the anterior part may be ground away or found quite loose as a separate body; it may look quite normal, but its moorings found loose, or the posterior part may be split, which can only be discovered by detaching the anterior portion and drawing the cartilage towards the front of the joint. The examination should be gentle, and it is made easier by the use of a small blunt hook. It is only necessary to remove the loose portion of cartilage if the remainder be firmly attached. If it be decided not to remove the whole cartilage, care should be taken to make the section without drawing upon the stump, otherwise it will be loosened and give rise to symptoms of recurrence. The capsule should not be closed until a search has been made for fringes, tabs or other possible sources of derangement. I always apply a tourniquet, never tie a vessel nor drain the wound. Effusion, if it occurs, is usually very trivial if the operation has been done gently. As no structures of any importance to the stability of the joint have been severed, walking may commence in from ten to fourteen days, the joint being protected for another week.

Loose bodies of whatever type should be removed. An endeavour should first be made to localise and fix them. This should be done immediately before the anæsthetic, when the patient's asistance can be obtained if necessary. The patient's hands should be sterlised and he should wear a mask and rubber gloves, and when found the fixed body should be placed in the keeping of a reliable assistant. The knee should be kept *extended* during this operation.

These loose bodies are often found in connection with rheumatoid arthritis, and should be removed whenever practicable. This may involve splitting the patella longitudinally to obtain a good view of the interior of the joint. Loose bodies are frequently found at the back of the joint, and obstruct flexion and sometimes extension. They cannot be effectively removed by an anterior incision, and it will be necessary to approach the joint from behind. The narrow communication between the anterior and post portions of the joint prevents them from travelling if they should prove of any size, therefore their removal is not difficult. An incision is made through the popliteal space, the nerve and vessels being kept to the outer side, and usually the loose bodies can be felt through the capsule. This route has also been described by my friends Brackett and Osgood.

I have many times operated upon joints that became locked and obstructed by the slipping of muscles or tendons over exostoses around the knee. The slide shows such a case. The patient, a good athlete, was frequently pulled up when running with a pain at the back of his joint, which I ascribed to an external semilunar. The knee on occasions locked. An X-ray revealed a pedunculated exostosis, which obstructed the vastus. When removed it was found to be surrounded by a bursa containing fibrous masses. This slide will serve as a type of several such cases upon which I have operated. The patient usually gives the history of a slipping at the back of the knee joint, which takes place only during unusual or active exercises. The knee sometimes completely locks and the derangement is often very difficult to reduce, the symptoms usually not being severe, merely a sense of discomfort and slight slipping. The patient falls, gets up again and feels the back of his knees and then goes on with his game. Sometimes it is the biceps which is hampered, at other times the inner hamstrings, and in one instance I removed a pedunculated exostosis, which frequently became entangled with the inner head of the gastrocnemius. Here you see an osteoma, which ceased to trouble as soon as it fractured. Until then it used on occasions to obstruct the sartorius. The next plate shows a flattened osteoma, which gave rise to symptoms suggestive of an injured semilunar, really due to its contact with the sartorius and semitendinosus, and the osteoma shown in the next slide caused a slipping of the knee on many occasions until it was removed. More rarely derangements may arise from sharp exostoses over the adductor tubercle, as shown on the following slide.

The diagnosis of such cases is easily made. They can be felt by the finger and demonstrated by the X-ray.

These cases are only a few of a large number which prove the part osteomata may take in disarranging the mechanism of the knee. Osteomata are so often found causing no symptoms that their evil conduct may sometimes easily be overlooked.

There are two conditions to which I would make a brief reference, as they give rise to very considerable disability: I allude to rupture of the crucial ligament and fractures of the tibial spines. The diagnosis of ruptured crucials is simple if we remember their functions.

The anterior crucial ligament is tense when the knee is fully extended, and prevents the tibia from being displaced forwards on the femur.

The posterior crucial ligament is tense in complete flexion, and prevents the tibia from being displaced backwards on the femur.

Both ligaments check inward rotation of the tibia. Hence, if after an injury of the knee the tibia can be displaced backwards or forwards or rotated inwards in the extended position, an injury of one or both crucial ligaments may be assumed.

If in the extended position the tibia cannot be displaced forward, it may be assumed that the anterior crucial ligament is not torn.

If the tibia cannot be displaced backwards when the knee is flexed, the posterior crucial ligament is not ruptured.

The diagnosis, therefore, of ruptured crucials is not difficult if we exclude those cases of abnormal mobility due to elongation or destruction of the ligaments associated with long continued effusion into the joint or with changes associated with Charcot's disease. A large experience of the dislocation of joints gives me the authority to state that if injuries resulting in ruptured crucials be treated by rest to the joint for several weeks an excellent recovery will usually result. It is therefore unwise to attempt their restoration by operative means.

Fractures of the tibial spines, of which I have seen many cases, may or may not be associated with rupture of the crucials. The most constant sign of this fracture is an obstruction to full extension. The block feels like a definite bony obstruction and is quite different from the locking, which occurs when a dislocated semilunar or a synovial fringe is nipped. If the spine be fractured and the knee is prevented from full extension, then with the knee flexed over the table end the patella should be split longitudinally, the incision being carried a sufficient length to allow the split portions to be drawn laterally over the condyles. The patellar pad should then be removed, together with the spine and any fibrous masses that obstruct. If no blocking should be present an operation is not needed, and the knee should be treated by rest and fixation in full extension.

Mr. President, ladies and gentlemen, I feel that I have placed these elusive injuries of the knee before you in so condensed and hurried a manner as to rob a fascinating subject of its charm. If this be so, I claim your kind indulgence. The lesions are probably much more common with you than your literature would suggest, but if by good fortune the clinical suggestions I have offered you should prove of practical use, I shall feel more than ever grateful for this privilege of addressing you.

DR. JAMES NEIL, M.D., formerly Medical Superintendent of the Warneford Mental Hospital, Oxford, left estate of the gross value of £6,984.

OPERATING THEATRES.

ROYAL FREE HOSPITAL.

Tuberculous Peritonitis.—Mr. Willmott Evans operated on a child, æt. 12, who had been admitted for distension of the abdomen. The girl had been well until 18 months before, when she had suffered from irregular attacks of diarrhœa, accompanied by some abdominal pain. She had wasted, but after a time the abdomen began to increase in size, though the diarrhœa had ceased. On admission, she was seen to be small for her age, badly nourished, and the abdomen was much swollen. On percussion, there was dulness in the flanks and above the pubes nearly to the umbilicus, but the remainder of the abdomen was resonant. There was no evidence of any pulmonary tuberculosis. A diagnosis of tuberculous peritonitis was made. She was kept under observation, and the distension of the abdomen slowly increased, causing her some discomfort. It was determined to operate.

The abdomen was opened by a median incision about two inches in length below the umbilicus. When the peritoneum was opened it was seen to be thickly studded with tubercle, and the small intestine which presented in the wound was similarly affected. About a pint and a half of fluid was evacuated; it was clear, but contained a few flakes of lymph. When no more fluid was coming away the peritoneum was sewn up with silk, the fascia drawn together, and the skin sutured. The wound was dressed with aseptic gauze, and the patient returned to bed.

Mr. Evans said that tuberculous peritonitis might arise in two ways: in one form the inflammation spreads from a tuberculous ulcer of the small intestine through the intestinal wall; usually the inflamed peritoneum causes adhesions to another piece of bowel and the general peritoneal cavity is not affected; but it may happen that some leakage occurs so that tubercle bacilli gain access to the general peritoneal cavity, giving rise to tuberculous peritonitis. True perforation of a tuberculous ulcer of the intestine very rarely occurs. Secondly, and this he considered is the more common way, tuberculous peritonitis may be set up by the bursting of a tuberculous mesenteric gland. When this happens tubercle bacilli are widely scattered all over the peritoneum, and innumerable tubercles form. The surgical treatment of this condition, he pointed out, arose from the successful result of opening the abdomen in a case of tuberculous peritonitis. A surgeon performed a laparotomy in such a case, where the diagnosis was uncertain, but finding that tuberculous peritonitis was present he did nothing more, simply closing the abdomen. To his surprise the patient recovered. It is not easy to say in any individual case, Mr. Evans remarked, whether a laparotomy will do any good, but a successful result follows in so many cases that it is always advisable to do it, unless some distinct contra-indication be present. It is sufficient to make a small opening into the peritoneal cavity to evacuate any fluid that freely comes away, and then to close the abdomen. It is important not to employ drainage; it does no good, and may lead to pyogenic infection of the peritoneum. In a few cases, if the first laparotomy fails, a second laparotomy some months later may succeed. In cases in which it appears to be desirable, laparotomy may be performed under local anæsthesia. While there can be no doubt as to the beneficial effect of laparotomy in some cases of tuberculous peritonitis, there is much doubt as to the mechanism by which the improvement is brought about. Possibly the operation causes a local leucocytosis which leads to obsolescence of the tubercle; possibly the osmotic relation of the peritoneum and its contents may be disturbed so that absorption takes place. It must be admitted that these explanations are hardly satisfactory.

The subsequent history of the case was that additional effusion occurred soon after the operation, but this was soon absorbed, and the patient was able to leave the hospital about a month later in a greatly improved condition.

SPECIAL REPORTS.

THE EIGHTY-SECOND ANNUAL MEETING OF THE BRITISH MEDICAL ASSOCIATION, HELD AT ABERDEEN, 1914.

(By Our Special Representative.)

THIRD ARTICLE.

The Work of the Sections.

Section of Anatomy and Physiology.

A great many papers were read in this section dealing with the development and physiology of the heart. Dr. Ivy Mackenzie (Glasgow) contributed papers on the bird's and the reptilian heart. Mr. Strickland Goodall (London) read a communication on "Some Instrumental Variations in the Human Electrocardiogram." Dr. E. S. Edie read a paper on some experimental work on the action of enzymes.

Section of Dermatology and Syphilology.

Dr. Norman Walker (Edinburgh) opened a discussion on the first day on "The Need for more Method in the Conflict with Lupus and Ringworm," followed by Dr. Alfred Eddowes, President, Drs. Goodwin Tomkinson, Haldin Davis, R. Bolam, Winkebried Williams, Green and Meachen. On the second day a joint meeting was held with the Section of Naval and Military Medicine and Surgery, when a discussion took place on "The Modern Treatment of Syphilis," in which Mr. J. E. R. McDonagh, Colonel T. W. Gibbard, K.H.S., Major L. W. Harrison, and Dr. J. C. McWalter, among others, took part. On the Friday various interesting papers were read.

Section of Diseases of Children, including Orthopædics.

On the first day Mr. T. H. Openshaw introduced a discussion on "Congenital Dislocation of the Hip." The view was put forward that treatment should be begun as soon as the diagnosis is made. A discussion on the thymus gland in its clinical aspects was opened by Dr. Archibald Garrod on the Thursday. Among the interesting papers read on the last day were "Lime Salts in Children's Diseases," by Dr. J. C. McWalter (Dublin); and two by Mr. Paul B. Roth on the treatment of torticollis and lateral curvature of the spine.

Section of Electro-Therapeutics and Radiology.

Professor Leduc, of Nantes, whose work on ionisation is so well known, gave an account of his experiments regarding the galvanisation of the brain. Some interesting papers were read on diathermy and high frequency currents, and the comparative value of X-rays and radium in the treatment of malignant growths. On the Friday a joint discussion was held with the foregoing section on "The Diagnosis of Chronic Pulmonary Tuberculosis in Infancy and Childhood," in which Drs. D. B. Lees, Clive Riviere, and Ironside Bruce, among others, took part.

Section of Gynæcology and Obstetrics.

A discussion took place on the Wednesday on the treatment of fibromyomata, opened by Dr. Archibald Donald (Manchester), followed by Professor Gauss (Freiburg). On the next morning Dr. Henry Jellett (Dublin) introduced the subject of "The Management of Pregnancy and Labour in Contracted Pelvis." The last day was occupied by the reading of papers on "Drug Treatment of Dysmenorrhœa," by Dr. J. C. McWalter; "Acidosis and the Nitrogen Particles in Pregnancy," by Dr. H. Leith Murray, and one on contracted pelvis, by Dr. D. Shannon.

Section of Laryngology, Rhinology, and Otology.

A discussion took place on the first day on "The Treatment of Inoperable Growths of the Nose and Throat," in which Mr. W. D. Harmer, and Drs. W. Hill and J. Macintyre, among others, took part. On the Thursday Dr. A. A. Gray introduced the subject of otosclerosis, and various papers were read on the following morning. Sir William Milligan (Manchester) demonstrated a new form of extending broncho-œsophagoscope.

MEDICAL SOCIOLOGY.

Considerable interest was shown, naturally, in the proceedings of this section, which was presided over by Dr. J. Gordon (Aberdeen). Dr. A. K. Chalmers, M.O.H., Glasgow, opened a discussion on "The Responsibility of the State as regards Venereal Disease," in the absence of Dr. G. Robertson (Edinburgh). He pleaded for freer opportunities for the diagnosis of these diseases, and he thought that the Government should assist local authorities financially in the matter of treatment. Professor Pontoppidan (Copenhagen) said that in Denmark the treatment was free. Subsequent speakers, among whom were Dr. Louise McIlroy (Glasgow), Dr. Lachlan Grant (Ballachulish), and Mr. T. Jenner Verrall (Bath), expressed their views as to the desirability of imparting instruction on sex hygiene to scholars. On the Thursday Sir John Collie opened a discussion on "A State Medical Service *versus* a Panel System." He said that the condition under which medical work was carried on under the panel system was, in many cases, not medical practice, but commercialism of the worst type. Dr. H. H. Mills (Kensington) thought that the suggestion of mapping out the whole population with military precision into brigades and battalions each with its medical officer was against our national characteristics. A separate discussion took place on "Medical Certification (otherwise than in regard to Insanity)," which was opened by Mr. C. Sandeman, K.C., and followed by Drs. A. C. Farquharson (Co. Durham) and J. C. McVail (Glasgow). On the last day Dr. Leslie Mackenzie (Edinburgh) opened a discussion on "The Duty of the State towards the Early Environment of the Child," followed by Drs. J. Carswell and T. Dewar.

SECTION OF MEDICINE.

Dr. Harry Campbell (London) introduced a discussion on "Headache," followed by Dr. C. O. Hawthorne and others. Dr. J. S. McKendrick (Glasgow) read a paper on "Splenectomy in relation to the Treatment of Anæmia." On the following day Dr. Rist (Paris) opened a discussion on "Artificial Pneumothorax in Pulmonary Tuberculosis." After the conjoined discussion already mentioned as taking place on the last morning with the Section of Diseases of Children, various papers were read, among which may be mentioned that by Dr. D. D. Brown (Harrogate) on rheumatoid arthritis, and that by Dr. W. Haig (Crieff) on the rapid relief of acute lumbago by manipulation and active movement.

SECTION OF NAVAL AND MILITARY MEDICINE AND SURGERY.

On the first day a discussion was opened on the treatment of wounded in naval warfare by Fleet-Surgeon D. Walter Hewitt, R.N. The subject of "Gangrene in War" was introduced by Captain C. Max Page, R.A.M.C. (S.R.), while the question of the employment of ex-soldiers and sailors in civil life was discussed by Lieut.-Col. E. M. Wilson, C.B., C.M.G., D.S.O., R.A.M.C. (R.P.). On the next day the combined discussion took place on syphilis as mentioned above, followed by one on "Common Ailments in Camp," introduced by Captain C. Johnson, M.B., R.A.M.C. (T.F.). Staff-Surgeon G. M. Levick, R.N., gave an interesting limelight lecture on the experiences of the Northern Party of Captain Scott's expedition.

SECTION OF NEUROLOGY AND PSYCHOLOGICAL MEDICINE.

A discussion was opened by Dr. F. W. Mott, F.R.S., on the "Diagnosis and Treatment of Parenchymatous Syphilis." On the next day Dr. C. G. Jung (Zurich) introduced the subject of the unconscious in psychopathology. The last day was given over to papers which included one on "Anger in its Medico-Psychological Aspects," by Dr. J. B. Hyslop, and one on "The Psychic Factor in Insomnia," by Dr. Crichton Miller.

SECTION OF OPHTHALMOLOGY.

Mr. E. E. Maddox (Bournemouth) opened a discussion on the choice of a cataract operation. The next day was occupied in a discussion on the hygiene of reading and near vision, introduced by Mr. J. Herbert Parsons (London.) Dr. Maitland Ramsay (Glasgow) opened a discussion on the last morning on the teaching of ophthalmology to medical students.

SECTION OF PATHOLOGY AND BACTERIOLOGY.

The President, Dr. W. S. Lazarus-Barlow (London) opened a discussion on "The Action of Radiation on Cells and Fluids." Dr. Carl Brown introduced the question of the bio-chemistry of immunity reactions, followed by Drs. J. H. Thiele, J. Cruickshank, and Mr. Mackenzie Wallis. On the next day a joint discussion took place with the Section of Pharmacology on "The Pathology of Heart Function," opened by Dr. Thomas Lewis (London), followed by Sir James Barr and Dr. J. Mackenzie. On the Friday Dr. W. J. Penfold introduced the subject of "The Importance of Variability among Bacteria and Its Bearing on Diagnosis."

SECTION OF PHARMACOLOGY, THERAPEUTICS AND DIETETICS.

Professor J. T. Cash (Aberdeen), who presided, advocated the use of the metric system in prescribing, with a view of bringing laboratory and clinical work into closer relation. Dr. J. M. Fortescue Brickdale (Bristol) opened a discussion on "Recent Advances in the Relationship between Chemical Constitution and Pharmacological Activity." The last day was occupied with a discussion on the pharmacology and therapeutics of the animal extracts exclusive of thyroid extract, in which Prof. Noel Paton and Dr. O. F. F. Greenbaum took part. Dr. Chowry Muthu (Wells) read a paper on diet in the treatment of pulmonary tuberculosis.

SECTION OF STATE MEDICINE AND MEDICAL JURISPRUDENCE.

Professor Matthew Hay (Aberdeen), the President, in his introductory remarks, thought that our changed attitude with regard to the criminal betokened a great advance in medical jurisprudence. Sir Victor Horsley then opened a discussion on death certification, and after Dr. Bruce (Dingwall), Dr. J. C. Dunlop (Register House, Edinburgh), Dr. F. E. Wynne (Wigan), and others, had spoken, the following resolution was moved and adopted:—"That the British Medical Association reaffirms its opinion that extensive reforms in the administration of national statistics of life and death are urgently needed, especially the immediate institution of a confidential system of death certification, and the Association therefore calls on the Government to introduce legislation to effect this essential change in the public health service." Dr. J. C. McWalter (Dublin) read a paper on "Legal Investigation of Cause of Death, with Suggestions for Reform." Numerous other papers on medico-legal and public health subjects occupied the rest of the programme.

SECTION OF SURGERY.

In spite of the fact that this section was overshadowed by the Clinical Congress of Surgeons of North America, held in London at the same time, much good work was done. A discussion took place on the first day on the "Ætiology and Treatment of Carcinoma of the Tongue," opened by Mr. W. G. Spencer (London). Professor J. K. Jamieson and Mr. J. F. Dobson (Leeds) read a paper on the lymphatics of the tongue. On the next day Mr. Robert Jones (Liverpool) opened a discussion on the surgical treatment of arthritic deformities. On the Friday Mr. H. M. W. Gray (Aberdeen) introduced the subject of "Anoci-Association, or the Evolution of the Shockless Operation." Many valuable papers were read in this section, which space forbids us to enumerate.

SECTION OF TROPICAL MEDICINE.

Fleet-Surgeon P. W. Bassett Smith, C.B., R.N., opened a discussion on Kala-azar and allied conditions, followed by Professor V. Gabbi (Rome), Dr. P. H. Bahr (Ceylon), and others. Dr. A. A. F. MacCallan (Egypt) read a note on "The Ankylostomiasis Campaign in Egypt." On the Thursday, Col. King, C.I.E., I.M.S., opened a discussion on "The Education and Position of the Sanitarian in the Tropics." The last day was occupied by the reading of papers and by a discussion opened by Mr. James Cantle, on the surgical treatment of colitis and post-dysenteric conditions.

(To be continued.)

ROYAL COMMISSION ON VENEREAL DISEASES.

Mr. Pugin Meldon, Senior Surgeon at the Westmorland Lock Hospital, Dublin, gave evidence before the Commission as the representative of a Joint Committee appointed by the Royal College of Physicians of Ireland, the Apothecaries' Hall, Ireland, the School of Medicine at Trinity College, Dublin, and the National University of Ireland. The Committee laid stress on the point that the difficulty in dealing with venereal disease arose from the social stigma attaching to those suffering from it. This stigma was certainly a hindrance to early diagnosis and treatment, and this being so it was not desirable to establish for the treatment of the general class of venereal disease patients special dispensaries and hospitals or special laboratories for diagnosis. As regards diagnosis, it was essential that clinical methods should be supplemented by the aid of the pathological laboratory, and arrangements should be made for the free diagnosis of venereal disease at the laboratories in the Pathological Departments of the Universities and Medical Schools. With regard to treatment, the Committee were of opinion that one cause which operated very extensively in deterring people from obtaining proper treatment was the penalisation of venereal disease. Employers of all kinds were in the habit of either dismissing from their employment persons who were found to be suffering from these diseases, or refusing them leave for the purpose of treatment. The result was that these persons either endeavoured to treat themselves or resorted to advertising quacks, and only sought a physician when the disease was so far advanced that they were unable to do their work. So long as this penalisation persisted, it was impossible seriously to suggest any scheme of notification, and therefore any really effective method of prevention. Similar consideration led the Committee to suggest that the Insurance Act should be amended so as to make it impossible to withhold sick pay and disablement pay in cases of venereal disease. The Committee referred to the fact that some general hospitals have rules precluding the admission of venereal patients, and they suggested that pressure should be put upon such hospitals to have these rules rescinded.

Mr. Macleod Yearsley, Senior Surgeon to the Royal Ear Hospital, stated that in his opinion syphilis and its concomitants was as severe amongst children of the poor as it was when he started practice as an aural surgeon twenty-one years ago. He had found that amongst children there were far more cases manifesting congenital syphilis among the poor than among the better class. This he attributed to the fact that in the latter the disease was recognised earlier and therefore treated earlier. Among the poor syphilis very often went untreated, and this was especially the case with children. As showing the number of children with congenital syphilitic deafness appearing after birth with sufficient severity to necessitate special education, he referred to records he had kept in connection with work at special deaf schools. Of the 845 children (427 boys and 418 girls) examined during a period of seven years, 61, or 7.21 per cent., were deaf from congenital syphilis. The females affected were greatly in excess of the males, the relative percentages being: boys 4.94, girls 9.56.

Dr. James Galloway, Senior Physician to Charing Cross Hospital, stated that recent experience gained in dealing with venereal diseases in the Army and Navy greatly encouraged the expectation that these diseases might, if favourable conditions were obtained, be prevented and their evil consequences diminished in the general population. He did not think, however, that compulsory measures involving registration and treatment were likely to lead to satisfactory results. In dealing with the general community, it was necessary that all efforts to cure and eradicate these diseases should be reinforced by the willing consent of the sufferers and by the sympathetic co-operation of the rest of the community. Social slur or stigma should so far as possible be removed from those under treatment. It should be strongly impressed upon the public that large numbers of persons suffered from venereal disease through no fault of their own. All hospitals willing to undertake the treatment of venereal diseases in their early or acute stages should be encouraged to do so. If this were done facilities would immediately be at hand for the greater number of patients. It was especially desirable that hospitals with medical schools should undertake the treatment of these diseases in a general scheme of dealing with these maladies throughout the community. Opportunity would thus be provided for the instruction of medical students in the recognition and treatment of venereal diseases in a way which had been impossible in the past. Dr. Galloway thought that the cost involved in the treatment of these diseases on a large scale would be considerable, and as the proper treatment and eradication of the diseases was a matter affecting the general health of the whole community, it was proper that the expense should be met by local authorities or by the State.

REPORT OF THE HOMES FOR INEBRIATES ASSOCIATION. (a)

The report of the Medical Superintendent of the Dalrymple House contains a good deal of interesting information concerning the treatment of sufferers from alcoholism and drug habits. 57 patients were admitted during the year under review, 36 as "private patients," and 21 under the Inebriates Act. The difficulty in treating the former class is due to its optimism. Most people object to signing away their liberty, and all the same are too eager for recovery and premature in their judgment of the complete rehabilitation of their self-control. The aim of the Medical Superintendent is to cure the cases with the least discomfort to themselves. Alcohol is, as a rule, stopped at once, and after the acute stage of deprivation—*i.e.*, in about 12 to 24 hours—medical treatment suitable to the individual is begun. The average duration of stay is five or six months, and anything less than three months is deemed too short for beneficial results in most cases. A summary of the whole of the 1,117 cases treated since the foundation of the Home is given, and of living patients about whom news is obtainable, 66 per cent. are reported as "doing well," which figure certainly shows a proportion of success that is most encouraging to those of us who are daily brought face to face with the awful results of over-indulgence in alcohol, and similar suicidal habits.

CORRESPONDENCE.

FROM OUR SPECIAL CORRESPONDENTS ABROAD.

GERMANY.

Berlin, Aug. 2nd, 1914.

At the Gesellschaft für Psychiatrie und Nervenkrankheiten, Hr. Kramer related a case resembling

Paralysis Agitans.

The patient was a man, æt. 58, who had always had good health. Syphilis was denied. The disease began ten years ago, and for the last five years he had been incapacitated from work. Gradually a slowness and difficulty had come on for all movements of the body, the voice had become soft, and speech slow. He could not perform quick movements. When he attempted to raise himself from a stooping position he had a tendency to fall backwards. All symptoms had gradually become worse. Objectively the remarkable things to be observed were the stiff attitude, slightly bent forward, the mask-like expression of the features, slowness and difficulty of performing all bodily movements. There was, moreover, a prolonged interval between the closure of the eyelids, a tendency to remain in any given position, and adiadochokinesis; also a tendency to retropulsion and not infrequently lateropulsion. These symptoms corresponded to paralysis agitans, but there was no tremor nor rigidity of the muscles; it was only when the head was being moved passively that there was any resistance. The pupils reacted slowly to light. The Wassermann reaction of the blood was positive. The movements of the eyes were also slow, and there was slight nystagmus. When the eyes were moved slowly he got a wider range of movement than when they were moved rapidly. Also the reflex movements of the eye were more extended than the voluntary ones, but they were still below the normal. There was no amblyopia. The remainder of the nerve functions, also the electrical excitability, were normal; the mental condition was also normal. Diagnostically, the case was one either of atypical paralysis agitans or a localised affection due to arteriosclerosis or syphilis that had a localisation corresponding to that of paralysis agitans. In any case the absence of rigidity was remarkable after so many years. The case showed that the disturbance of movement of paralysis agitans was an independent symptom, and had nothing to do with stiffness of the muscles.

(a) "The Thirtieth Annual Report of the Dalrymple House at Rickmansworth, 1913-14." London: H. K. Lewis. 1914.

Hr. Maas said he had had a similar case in which all movements of the eyes were performed slowly. That case was one of Friedreich's disease probably. The same symptom had been observed by Westphal in a case of pseudo-sclerosis.

In a case of caloric irritation of the vestibule the following curious condition was observed: Some seconds after syringing out with from one to two litres of water at a temperature of 20° C., with the head held erect, when the right ear was syringed the patient could not move the eyes to the left beyond the middle line, whilst movements to the right were performed with the usual pathological slowness. If the ear was washed out with water at a temperature of 42° there was momentary disturbance of movement towards the side that was being syringed. These disturbances were greater when cold water was being made use of for the syringing.

At the Verein für Innere Medizin, Hr. Falk spoke on the

Treatment of Tetanus Neonatorum.

During a period of four months the speaker had seen three cases of the disease at the Kinderkrankenhaus. He had treated all three with injections of magnesium sulphate (8 to 25 per cent.). The paralysing action he combated by calcium chloride. All the children recovered. The magnesium had the effect of controlling the spasms.

Hr. Finkelstein said that the duration of the disease was not shortened, but the great advantage gained was warding off of violent attacks of spasm during which children often died.

Hr. Czerny doubted whether tetanus neonatorum was an infective disease.

Hr. Falk, in reply, said that the magnesium sulphate must be given in full doses, but one had to be careful not to cause paralysis. If given too late the convulsions were not prevented.

At the Verein für Innere Medizin, Hr. Bieling gave a communication on

The Action of Extracts of the Endocrinal Glands on the Tissue Changes of Rachitic Infants.

Various glands with an internal secretion, he said, had an effect on the growth of bone. In the first rank, the anterior lobe of the hypophysis, the parathyroid, the sexual glands, and in young animals the thymus. He had studied the effects of these substances by injecting them into rachitic children. When he injected every day 0.3 c.cm. of a 10 per cent. extract of the parathyroid of the sheep both lime and phosphorus were retained, whilst retention was much lowered when the injections were suspended. Growth was not influenced by injection of the thymus extract of the calf. When extract of the anterior lobe of the hypophysis was given there was diminished retention of lime, but increase in that of phosphorus. From the above it would appear extract of the parathyroid was of great importance as regarded the growth of bone.

Hr. Oswald Meyer said he had seen recovery take place in a case of spasmophilia after the use of parathyroid extract.

Hr. Langstein counselled caution in arriving at conclusions regarding the value of these substances.

HUNGARY.

Budapest, Aug. 1st, 1914.

The Heart in Rheumatism in Children.

Drs. Benes and Dessewfy say that even the apparently mildest rheumatism in a child, not causing the slightest appreciable symptoms, may yet entail heart trouble, possibly fatal. This is accepted as a matter of course in acute articular rheumatism, in which the heart behaves like a joint, but it is not generally known that a slight attack of rheumatism with merely vague pains, or none at all, may be followed after a few weeks or months or years by a little pain in the precordial region and dyspnœa. The heart beat is found 120 or 140, but regular, and there may be evidences of old mitral insufficiency and recent pericardial friction sounds. The liver is slightly enlarged, the base of the lungs congested and the child is pale and languid, without appetite. Under rest in bed, ice to the heart, digitalis and the salicylates the symptoms subside and all seems well after four or five days. If the temperature is taken, however, it will be found a little above normal, and after a few days the syndrome recurs, to subside and return again. This alternation of symptoms is characteristic of the affection in question. No one imagines anything is seriously wrong until the terminal phase develops with aggravation of all the symptoms, vomiting and hæmoptysis and the child dies in collapse, without signs at any time of true asystolia, dropsy or œdema. They have encountered twelve cases of this malignant rheumatic heart disease in children and discuss its various features. Their experience teaches the importance of vigorous salicylic medication in every case of rheumatism in a child, no matter how apparently mild, and the physician should watch over the heart afterwards. Every tachycardia, every pain in the heart region, with or without fever, should be regarded as signs of serious trouble, especially when there is accentuation of the second pulmonary sound. This latter indicates not only the participation of the pericardium, but also the possibility of deeper lesions so often associated with the pericarditis. Dessewfy advocates subcutaneous injections of sodium salicylate dissolved in twice the amount of water. From 2 to 7 gm. of this solution can be injected at one point without inducing a local reaction. Digitalis also relieves; the children with the affection seem to display a special tolerance for digitalis and the symptoms improve under it.

Diagnosis of Enlarged Thymus in Young Children.

Dr. Deak analyses the symptoms and signs suggesting hypertrophy of the thymus, his conclusions being that it is sometimes extremely difficult to distinguish between an unduly enlarged thymus and enlarged tracheobronchial glands as the cause of dyspnœa. He gives the details of twenty-one cases (*Orvosok Lapja*, June 2nd, 1014) to illustrate the various points involved, including two in which he was certain that the thymus was hypertrophied, but an operation revealed atrophy of this gland, the enlarged tracheobronchial glands being responsible for the trouble. The special features of enlargement of the tracheobronchial glands are a history of measles, bronchitis or bronchopneumonia, the general lack of dulness over the manubrium, and difficulty in breathing which is experienced mostly during expiration, while the chest is retracted during inspiration, mainly in the lower portion, the depression occurring, if it occurs at all, simultaneously in the epigastrium, the lower sternum region and the hypochondrium on each side. The part of the chest above seems to protrude above the transverse groove resulting from this form of retraction. Sometimes the groove curves up on each side, so the chest above bulges spherically, while the retracted portion below flattens out, spreading out on the sides. Röntgenography shows the normal chest with a shadow like a long-necked bottle, while with enlarged thymus the shadow is irregular, with a protrusion just below the neck of the bottle on one or both sides, but the outline is smooth and the shadow even. With swollen lymph-nodes in the anterior mediastinum, the upper part of the shadow is as normal, but below it spreads out irregularly generally on the right side of the shadow of the heart, the protrusions small and round or finger-shaped, sloping down and outward, sometimes showing several shadows with a circular outline, while the depth of the shadow may vary from that of the heart, being either lighter or darker.

FROM OUR SPECIAL CORRESPONDENTS AT HOME.

SCOTLAND.

Professorship of Pathology at Aberdeen.

The King has been pleased, on the recommendation of the Secretary for Scotland, to approve of the appointment of Theodore Shennan, M.D., F.R.C.S.E., to be Regius Professor of Pathology in the University of Aberdeen. Dr. Shennan is at present Pathologist to the Royal Infirmary, Edinburgh, and has been engaged in teaching the subject almost since his graduation in 1890. He has worked in the pathological and bacteriological laboratories of London, Copenhagen and Munich. He has made a number of important contributions to our knowledge of tuberculosis, particularly in children. Dr. Shennan is extremely popular as a colleague and as a teacher, and his appointment is looked on as a well-deserved recognition of the work he has done.

Baldoran Institution for Mental Defectives.

In the annual report of this well-known Scottish institution for the treatment of mental defect the changes, and the need for increased accommodation for defectives, which are foreshadowed by the passing of the Mental Defectives Act are referred to, but at present lack of capital has prevented the carrying out of any structural changes. It has lately, however, been found possible to carry into effect a desirable reform, and to separate completely from one another the children who are capable of being taught, and those who can only be nursed. During the year 25 boys and 17 girls were admitted, and 12 boys and 13 girls discharged, the total inmates being 208. The hope is expressed that when the District Board of Control assumes the reins the present unsatisfactory state of matters—the sending of children too late, and their withdrawal without any provision being made for their future—will cease. For the rest, the report, and the opinions of the Lunacy Commissioners appended thereto, show that the Institution is doing its work in a satisfactory manner, and is endeavouring during the transitional period to meet all the demands which the future may have in store.

Edinburgh Post-Graduate Courses.

Owing to the occurrence of the war, it has been decided not to hold the post-graduate courses in Edinburgh this year. The proximity of the North and East of Scotland to the North Sea, and the prospect of the various hospitals in the neighbourhood being drawn upon for military purposes, together with the general dislocation of business renders this decision a regrettable necessity. It is felt that under the existing circumstances the post-graduate courses would not have been up to their previous standard, either as regards attendance or the quality of the work done, and it has therefore been thought better to allow them to remain in abeyance for this year.

LETTERS TO THE EDITOR.

[We do not hold ourselves responsible for the opinions expressed by our Correspondents.]

FORCIBLE FEEDING.

To the Editor of The Medical Press and Circular.

Sir,—I am loath to be at disputation with such distinguished champions of the militant suffragist as Sir Victor Horsley and the Hon. Secretary to the "Forcible Feeding Protest Committee." I should like to be allowed to ask these gentlemen, or any other whom it may concern, this very simple question: What do those who are opposed to so-called forcible feeding propose to substitute in lieu thereof in the event of a militant suffragette "attempting to commit suicide" by starvation? It is obvious on the face of this question the prison officials cannot permit deliberate suicide without efforts to arrest a prisoner in the act, otherwise they would be accessory in law to a criminal act, hence they are driven to the insistence of taking food or forcible feeding.

On the other hand it seems equally clear that no law indemnifying the prison officials from responsibility, as was suggested in a leading article in the *Times*, could be consistently brought in so long as suicide is a felony or a criminal act, because under such circumstances the law, as it now stands, would be treating suicide as a criminal offence in one direction, and to all intents and purposes legalising it in another.

If, therefore, the suggestion of Sir Victor Horsley, the Bishop of London, and others, were adopted—that is to say, the entire dispensation or abrogation of forcible feeding, a militant suffragist would—as indeed they are for the most part now—be set free to commit another crime possibly more atrocious and dastardly than the original crime, well knowing the immediate penalty could not exceed the first offence, and on the principle that one may as well, as is said, be hung for a sheep as a lamb, there is every encouragement for her to commit further crime.

In conclusion, Sir, it is no answer to all this to say, "Then give them the vote." This is merely evading the question of forcible feeding, and reverting to a political question which does not concern a medical journal. The enfranchisement of women has nothing to do, as Sir Victor intimates (so I understand him), with forcible feeding. On the other hand, it is essentially a medico-legal question, and as such I venture to intrude on your columns.

I am, Sir, yours truly,
Clement H. Sers, M.R.C.S.

5, Chanctonbury Road.
August 7th, 1914.

NEO-MALTHUSIANISM.

To the Editor of The Medical Press and Circular.

Sir,—Since my last letter appeared activity has been given to a whole mass of factors bearing upon the international position of ourselves and surrounding peoples, the theories of which have been touched upon in my previous communications. The book must be therefore closed upon these theories for the present; it would be grossly unseemly to discuss them at this moment, but there seems no reason why many of the topics included in what is styled "Neo-Malthusianism" should not be examined with advantage and propriety. It would be a great gain at the outset if we were clearly and explicitly informed what is Neo-Malthusianism. With my knowledge I can only interpret it as the cult of a doctrine which avows that most of the evils of the world can speedily be put an end to by a narrow limitation of the population. "Neo-Malthusian" charges me "with taking a limited view of the matter." He thinks "I am imbued with the idea of imperial domain both for France and England." This passage may serve as a fair sample of "Neo-Malthusian's" style throughout. It is very vague; a solid statement is difficult to discover anywhere. What does he really mean, for example, by "imperial domain"? He declares "that more important than the welfare of France or of England is the welfare of the world." He implies that the propagation of the Patagonians, Zulus, and the stationary backward races of the East is as important as that of the progressive peoples of the West. There is a passage in one of Charles Kingsley's books—it is quoted in the recently published life of Florence Nightingale—in which he points out the empty vast domains in British Colonies, and pleads for population of these territories by what he eloquently demonstrates is the finest race on earth—the Anglo-Saxon. He writes of the waste of infantile life due in his time to neglect of sanitation alone; shows how the diseases keeping up the death-rate are mainly preventable, and argues for the rearing of our broods by known methods into stalwart men and women fit to occupy and dominate our glorious heritage. In Canada, in Australia, in Africa, and our minor colonies there is room for all our normal surplus for some hundreds of years. There still remain on both sides of the globe the stupendous uninhabited areas, as, for example, in South America and Asia Minor, open to the overflow from other races. The famines in India and elsewhere in modern times have not been kept in existence by a shortage of food in the world, but by the difficulty of conveying it to the affected locality, and by the neglect to accumulate stores in anticipation of years of shortage sure to occur in an entirely agricultural country.

Next comes another of "Neo-Malthusian's" statements which, to my poor intelligence, seems vague to the verge of nonsense. He writes: "It might be argued that our surplus population would be employed to make the desert arable and the jungle fruitful, but that would mean a total abandonment of the ways of statesmen." Men who deserve to be styled statesmen usually yield to the proof of practical fact, as they would surely in this case. It is true that I have pointed out that a great part of our surplus is at present unemployable, but at the same time I have shown that sanitation and education in the broadest senses would stop the manufacture of these useless citizens and render them acceptable immigrants to all our Dominions. There is a good deal more of obscure statement in "Neo-Malthusian's" letter, and he entirely ignores one fact of tremendous importance. He leaves out of consideration the fact that when the first-born are not as a rule the best physiologically of the possible brood, and these alone are chosen to continue the strain, there is being carried on a gigantic system of artificial selection of the wrong sort which must favour the survival of an inferior stock and tend to the degeneracy of the race. The late M. Bertillon, and other distinguished French scientific writers have dwelt upon this, and Professor Karl Pearson has lately published a mass of facts in support of that view.

I am, Sir, yours truly,
Henry Sewill.

The Old Rosery,
Earlswood Common.
August 8th, 1914.

THE WAR AND THE DISTRIBUTION OF RELIEF.

To the Editor of The Medical Press and Circular.

Sir,—I am directed by the Local Government Board to inform you that the Government have constituted a Committee, of which the President is acting as Chairman, to advise on the measures necessary to deal with any distress that may arise in consequence of the war.

In the opinion of this Committee it is desirable that there should be formed throughout the country representative local Committees, whose function it will be to consider the needs of the localities and co-ordinate the distribution of such relief as may be required.

It is proposed that there should be a local Committee in each borough and urban district whose population exceeds 20,000 and in each country exclusive of those areas.

Mr. Herbert Samuel feels sure that he can count on your assistance, and he accordingly desires me to invite you to take immediate steps to establish such a Committee, of which you will be the Chairman. The Committee should comprise representatives of the local authorities, including the Boards of Guardians, of the Distress Committee, if any, of the Trade Unions, and of philanthropic organisations, such as the Soldier's and Sailors' Families Association. It is important that some of the members should be women. In many of the larger towns, and in county areas, it will probably be found desirable to work through subsidiary local committees.

By circulars which have been already addressed by the local Government Board to the Councils of areas within which Distress Committees are in existence, the suggestion has been made that schemes should be prepared in advance, which would be put into execution in the event of a serious lack of employment arising. Local authorities generally can mitigate the results of the dislocation of industry by expediting schemes of public works upon which surplus labour can be utilised, and the Local Government Board will be happy to facilitate any such schemes.

In addition, in districts where there is an exceptional amount of unemployment, the Road Board will be able to afford financial assistance to plans of road improvement, and the Development Commissioners will also be ready to aid suitable schemes within the scope of their powers.

A national relief fund is about to be organised, and it is intended that the local distribution of the sums thus made available shall be entrusted to the Committees, over which the Mayors and Chairmen of Councils will preside.

Further communication will be made to you with reference to this fund, and also with regard to the work of the Committee generally.

I am, Sir, your obedient servant,
H. C. Monro, Sec.

Local Government Board,
Whitehall, S.W.
August 6th, 1914.

NEW BOOKS AND NEW EDITIONS.

The following have been received for review since the publication of our last monthly list:—

Bailliere, Tindall and Cox (London)
- Insanity in Every-day Practice. By E. G. Younger, M.D., etc., etc. Third edition. Pp. 130. Price 3s. 6d.
- Aids to Dental Anatomy and Physiology. By Arthur S. Underwood, M.R.C.S., L.D.S. Third edition. Pp. 136 Price 2s. 6d.
- Aids to Forensic Medicine and Toxicology. By William Murrell. M.D., F.R.C.P. Revised by W. G. Aitchison Robertson, M.D., D.Sc., F.R.C.P.E. Eighth edition. Pp. 153. Price 2s. 6d.
- Manual of Anatomy, Systematic and Practical, Including Embryology. By A. M. Buchanan, M.A., M.D., etc., etc. Illustrated. Second impression. Pp. 1,559. Price 21s.

Bale, John, Sons and Danielsson, Ltd. (London).
- On Means for the Prolongation of Life. By Sir Hermann Weber, M.D., F.R.C.P. Pp. 235. Price 4s. 6d.

Churchill, J. and A. (London).
- St. Thomas's Hospital Reports: New Series. Edited by Dr. J. J. Perkins and Mr. C. A. Ballance. Vol. XLI. Pp. 237. Price 8s. 6d.
- The Pharmacopœia of the Hospital for Diseases of the Throat, Nose, and Ear (Golden Square). Edited by Charles A. Parker, F.R.C.S., and J. Jefferson Faulder, M.B., etc. Seventh edition. Pp. 62. Price 2s. 6d.
- Operative Surgery: The Head and Neck, the Thorax and the Abdomen. By Edward H. Taylor, M.D., etc., etc. Pp. 524. Price 30s.

Griffin, Charles, and Co., Ltd. (London).
- The Treatment of Diseases of the Digestive System. By Robert Saundby, M.D., etc., etc. Second edition, revised and enlarged. Pp. 179. Price 4s.
- A Practical Handbook of the Tropical Diseases of Asia and Africa. By H. C. Lambart, M.A., M.D. Pp. 324. Price 8s. 6d.

Heinemann, Wm. (Rebman, Ltd.) (London).
- The Salvarsan Treatment of Syphilis in Private Practice. By G. Stopford-Taylor, M.D., and R. W. Mackenna, M.A., M.D. Pp. 90. Price 5s.

Lewis, H. K. (London).
- The Child's Diet. By J. Sadler Curgenven, M.RC.S. Second edition. Pp. 115. Price 2s. 6d.
- The Ileo-Cæcal Valve. By A. H. Rutherford, M.D.Edin. Pp. 63. Price 6s.

Livingstone, E. and S. (Edinburgh).
- Examination of the Urine and Other Clinical Side-Room Methods (late Husband's). By Andrew Fergus Hewat, M.B., Ch.B., M.R.C.P.Ed. Fifth Edition. Pp. 212. Price 1s. 6d.
- Gas Poisoning in Mining and Other Industries. By John Glaister, M.D.Glas., D.P.H.Cantab., etc., etc., and David Dale Logan, M.D.Glas., D.P.H. Pp. 471. Price 10s. 6d.

Longmans, Green and Co. (London).
- An Introduction to the Study of Organic Chemistry. By H. T. Clarke, D.Sc. Pp. 484. Price 6s. 6d.

Maloine, A. (Paris).
- La Guerre en Bulgarie et en Turquie. By Prof. Dr. Octave Laurent. Pp. 383. Price 6fr.

Scientific Press, Ltd., The (London).
- Medical Homes for Private Patients: 1914 (9th year). Pp. 204. Price 6d.

Wright, John, and Sons, Ltd. (Bristol)
- The Newer Physiology in Surgical and General Practice. By A. Rendle Short, M.D., etc., etc. Third edition, revised and enlarged. Pp. 256. Price 5s.

MEDICAL WAR ITEMS.

H.M. the Queen has become President of a Committee of Ladies of Justice, Ladies of Grace, and Honorary Associates of the Order of the Hospital of St. John of Jerusalem in England to provide hospital, medical, and other comforts for the sick and wounded. Full particulars can be obtained from St. John's Gate, Clerkenwell.

A large number of private houses, colleges, castles, institutes, and other public buildings, as well as steam yachts, have been lent to the Government for hospital purposes by their respective owners.

It is announced that the Medical School of St. Mary's Hospital has been closed until further notice. Sir John Broadbent, Mr. Lowe, Mr. Clayton Greene, and about one hundred surgeons and students have left the hospital for service with the R.A.M.C.

The price of medical dressings has already advanced 10 to 20 per cent. owing to the great demand from the Government (who have precedence) as well as from hospitals all over the kingdom. Cotton wool, wood wool, lint and bandage cloths are especially affected.

Civilian medical practitioners desiring to serve at home or abroad as surgeons with the Army should communicate with the Secretary, War Office. Gentlemen accepted for such service will be granted the temporary rank of Lieutenant in the Army and must fulfil the following conditions: (1) They must be registered practitioners. (2) They must engage for a period of 12 calendar months or until their services are no longer required, whichever shall first happen. (3) Their pay to be 24s. a day, inclusive of all money allowances except travelling allowances and expenses when travelling on duty. (4) They will be granted free passages to and from any country abroad to which they may be sent. (5) They must devote their whole time to military service. (6) They will receive a gratuity of £60 at the termination of their engagement if they have rendered satisfactory service. (7) They should not exceed thirty-five years of age, but in exceptional circumstances gentlemen between thirty-five and forty may be accepted. (8) They must furnish: (*a*) A medical certificate showing that they are in good health, of sound constitution, and fit for hard physical work. (*b*) A statement of any previous service with the Army. (*c*) A recommendation as to character from a person of position and responsibility. (*d*) A certificate as to age.

MEDICAL NEWS IN BRIEF.

A Tuberculosis Dispensary for the City.

The Local Government Board has approved the establishment, under the National Insurance Act, of the proposed tuberculosis dispensary at St. Bartholomew's Hospital for a period expiring on October 31st, 1915. It is expected that the dispensary will be opened on November 1st, probably not without some ceremony, though nothing has yet been definitely decided on that point. The Corporation, it is understood, has arranged to subsidise this interesting experiment for one year, at an estimated annual expenditure of £300 to £500.

Royal Dublin Society.

We are asked by the Council of the Royal Dublin Society to announce that, in consequence of the present national emergency, and the occupation of the Society's premises at Ball's Bridge by the military authorities for mobilisation purposes, the Horse and Sheep Show and the Art Industries Exhibition announced to be held on August 25th to 28th must be abandoned.

The Metropolitan Hospital Sunday Fund.

The Council of the Metropolitan Hospital Sunday Fund met at the Mansion House last week under the presidency of Sir William Church. The sum of £59,403, the total of the fund for the year, was allocated in awards to 253 institutions, being 10 less than last year. Of the total sum $7\frac{1}{2}$ per cent. was appropriated to the purchase of surgical appliances and $2\frac{1}{2}$ per cent. for district nursing associations. Sir William Church was elected to represent the Fund on a committee which is dealing with the co-ordination of district nursing institutions.

Among the awards recommended by the Committee of Distribution and approved by the Council for the year 1914 may be mentioned the following General Hospitals:—Charing Cross Hospital, £1,080; French Hospital, £356; German Hospital, £600; Great Northern Central Hospital, £1,298; Guy's Hospital, £1,692; Hampstead and North-Western London Hospital, £712; Italian Hospital, £205; Kensington General Hospital, £116; King's College Hospital, £1,454; London Hospital, £5,707; London Homœopathic Hospital, £507; Phillips's Memorial Homœopathic Hospital, £43; London Temperance Hospital, £608; Metropolitan Hospital, £1,079; Mildmay Hospital, £226; Mildmay Memorial Hospital, £49; Miller Hospital and Royal Kent Dispensary, £389; Poplar Hospital, £557; Prince of Wales's General Hospital, Tottenham, £790; Royal Free Hospital, £1,276; St. George's Hospital, £2,041; SS. John and Elizabeth Hospital, £148; St. John's Hospital, Lewisham, £221; St. Mary's Hospital, £1,875; St. Thomas's Hospital, £478; Seamen's Hospital Society, £1,400; The Middlesex Hospital and Convalescent Home, £2 465; University College Hospital, £1,830; Walthamstow, etc., Hospital, £140; Wandsworth, Bolingbroke Hospital, £317; West Ham Hospital, £800; West London Hospital, £1,131; Westminster Hospital, £1,003.

Conjoint Board of England.

The following candidates, having passed the required examinations and conformed to the by-laws, were last week admitted members of the Royal College of Surgeons of England, and the same candidates were by the Royal College of Physicians of London granted licences to practice physic:—W. H. Alderton, C. P. S. Allingham, C. F. Anthonisz, A. L. Anthony, A. B. Appleton, W. D. Arthur, J. E. Ashby, L. B. Baird, F. A. Beattie, M. W. K. Bird, N. Briggs, I. M. Brown, N. H. M. Burke, A. J. Chillingworth, E. R. T. Clarkson, M. T. G. Clegg, B. K. T. Collins, S. H. Cooke, D. L. Davies, D. C. de Fonseba, J. B. G. Datto, G. E. Elkington, H. L. G. Foxell, W. D. Galloway, G. A. Gassmann, E. Gray, E. W. Griffith, B. G. Gutteridge, A. R. Hacker, O. Hairsine, C. S. P. Hamilton, A. H. Harkness, A. H. Harty, H. W. Hay, H. S. C. Hooper, G. B. Horrocks, A. M. Hughes, J. B. Hunter, R. N. Huner, B. L. Hutchence, R. T. Jones, T. C. Kidner, S. D. Kilner, G. C. King, C. Lambrinudi, J. Lloyd, C. E. Lowe, D. M. MacManus, F. Mahabir, J. B. Matthews, J. L. Meynell, J. D. Milne, B. H. Mitra, F. J. Nattrass, D. W. Pailthorpe, C. E. Petley, K. B. Pitson, D. J. Platts, D'Arcy Power, A. B. Preston, W. B. Purchase, J. B. Rawlins, G. F. Rowcroft, H. C. Samuel, F. H. A. Sayed, F. G. L. Scott, P. D. Scott, E. J. Selby, A. el K. Selim, J. Sen, G. D. Shann, W. H. Shephard, A. F. Simmins, I. R. Smith, K. V. Smith, G. J. C. Smyth, L. C. Somervell, F. L. Spalding, C. W. Sparks, C. J. Stewart, G. Stiell, E. A. Sutton, C. H. Thomas, T. A. Townsend, D. C. L. Vey, E. H. Walker, J. F. West, C. L. Williams, F. A. Williamson, J. St. G. Wilson, F. B. Winfield, W. P. Wippell, T. M. Wood-Robinson, M. S. Woolf, E. J. Wright.

NEW DIPLOMATES IN PUBLIC HEALTH.

The Diploma in Public Health, which is granted jointly by the two Royal Colleges, was conferred upon the following:—E. I. E. Atkinson, W. J. Bannister, L. M. Biswas, A. Bloom, S. Bradbury, H. Chand, A. D. Child, R. E. Collins, N. E. Dunkerton, W. Egan, H. H. A. Emerson, J. Erlank, K. Ghosh, S. M. Ghosh, D. H. C. Given, J. Griffiths, S. H. Griffiths, F. D. G. Howell, W. W. Jameson, T. S. McIntosh, W. H. McKinstry, H. B. W. Morgan, B. P. Mozoomdar, V. P. Norman, P. S. Parkinson, A. Z. Philips, R. B. Price, K. A. Rahman, R. C. Roy, K. S. Sethna, J. B. Shirgaokar, F. Standish, W. D. H. Stevenson, S. N. Sur, A. L. Urquhart, F. W. Waterworth, J. S. Webster, J. I. P. Wilson, and W. B. Winston.

NOTICES TO CORRESPONDENTS, &c.

☛ CORRESPONDENTS requiring a reply in this column are particularly requested to make use of a *Distinctive Signature or Initial*, and to avoid the practice of signing themselves "Reader," "Subscriber," "Old Subscriber," etc. Much confusion will be spared by attention to this rule.

ORIGINAL ARTICLES OR LETTERS intended for publication should be written on one side of the paper only and must be authenticated with the name and address of the writer, not necessarily for publication, but as evidence of identity.

REPRINTS.—Reprints of articles appearing in this JOURNAL can be had at a reduced rate, providing authors give notice to the publisher or printer before the type has been distributed. This should be done when returning proofs.

DR. CHRISTOPHER ADDISON'S APPOINTMENT.

IT was announced yesterday that Dr. Christopher Addison, M.D., M.P., has been appointed Parliamentary Secretary to the Board of Education.

Dr. W. S. (N. Wales).—According to the most recent returns, the number of experiments performed on living animals during 1913 under licences in England and Scotland was 88,158, being 4,559 more than in 1912. The great majority of these were simple inoculations and injections performed without anæsthetics.

THE METROPOLITAN ASYLUMS BOARD.

IT is announced that the Metropolitan Asylums Board have raised the salaries of their medical staff by £70 a year in the case of junior officers, and by sums ranging between £50 and £70 in the case of senior officers.

TUBERCULOUS MILK.

IN America experts have decided that one-third of the milk supply comes from tuberculous cows, in which 95 per cent. show no physical signs. The matter is one demanding attention and inquiry in this country. The significance of the allegation is that much tuberculous infected meat must be consumed, which escapes legal condemnation.

H. T. M. (Swindon).—The cause of science and particularly of research must, necessarily, receive a severe check through the war. No German medical papers can, of course, reach these shores for some time to come.

THE NEW "BRITISH PHARMACOPŒIA."

THE General Medical Council has announced that the publication of the new edition of the "Pharmacopœia" has been indefinitely postponed in view of the war and other changes.

POST GRAD. (Edinburgh).—Our correspondent will see that the subject of his enquiry has been dealt with on reference to the notes by our Scotch correspondent in present issue. The question of an "inclusive fee," has, we understand, been allowed to drop for the present.

WORKMEN'S COMPENSATION ACT, 1906.

THE Home Secretary gives notice that in consequence of the deaths of Dr. C. T. Vachell, one of the Medical Referees for Cardiff and Barry County Courts, and of Dr. J. F. Robertson, Medical Referee for the Shetland District of Caithness, Orkney, and Shetland, the appointments held by them are now vacant. Applications for the posts should be addressed to the Private Secretary, Home Office, Whitehall, S.W., and should reach him not later than the 26th August, 1914.

L. S. A. (Herts).—The use of perchloride of iron was advocated some time ago for ringworm of the scalp. It cannot be said to be be superior to iodine when employed as soon as the disease is recognised, but wherever possible radiotherapy is to be preferred.

APOTHECARIES' HALL OF IRELAND.

COMMUNICATIONS having been addressed to the Apothecaries' Hall of Ireland, with reference to supplying temporary surgeons for the Army and Navy in the existing national emergency, the Apothecaries' Hall have decided to hold a special qualifying examination on August 19th.

Intending candidates should communicate at once with the Registrar, Apothecaries' Hall, 40 Mary Street, Dublin.

FOREIGN CORRESPONDENCE.

THE usual letter of our French correspondent has not reached us this week.

THE letter of our Austrian correspondent came to hand as we were "at press" too late for our present issue; it is held over for our next.

Vacancies.

Certifying Factory Surgeons.—The Chief Inspector of Factories announces the following vacant appointments:—Dunstable (Beds.), Trillick (Co. Tyrone).

Hulme Dispensary, Dale Street, Stretford Road, Manchester.—House Surgeon. Salary £180 per annum, with apartments, attendance, coal, and gas. Applications to Honorary Medical Secretary.

Royal Edinburgh Asylum, Morningside.—Assistant Physician. Salary £175 per annum. Applications, with full particulars, to the Physician-Superintendent.

Liverpool Education Committee.—Two Assistant School Medical Officers. Salary commencing at £250, rising to £350 per annum. Applications to the Town Clerk, Municipal Buildings, Liverpool. (See advt.)

Cornwall County Asylum, Bodmin.—Junior Assistant Medical Officer. Salary £225 per annum, with furnished quarters, board, laundry, and attendance. Applications to the Medical Superintendent.

County Asylum, Whittingham, Preston, Lancs.—Assistant Medical Officer. Salary £250 per annum, with board, furnished apartments, etc. Applications to the Medical Superintendent. (See advt.)

Birkenhead Borough Hospital.—Senior House Surgeon. Salary £120 per annum, with board and laundry. Applications to the Secretary.

Manchester Northern Hospital for Women and Children, Park Place, Cheetham Hill Road.—House Surgeon. Salary £120 per annum, with apartments and board. Applications to Mr. Hubert Teague, Secretary, 38 Barton Arcade, Manchester.

Horton Infirmary, Banbury.—House Surgeon. Salary £120 per annum, with board and residence in the infirmary. Applications to E. Lamley Fisher, Hon. Secretary, Horton Infirmary, Banbury.

Appointments.

DUDLEY, FRANCIS, L.R.C.P., L.R.C.S., L.M.Irel., Medical Superintendent at the Cornwall County Asylum, Bodmin.

GANDY, E. WORSLEY, M.R.C.S., L.R.C.P.Lond., Assistant Anæsthetist to the Royal Ear Hospital, Soho, and Administrator of Anæsthetics to the Westminster Hospital.

GIBSON, J. A., M.D., C.M.Edin., Medical Officer of Health of East Cowes.

HIRSCH, CHARLES T. W., M.R.C.S., L.R.C.P.Lond., House Anæsthetist to the Royal Dental Hospital.

LEITH, J. D., M.B., C.M.Edin., Tuberculosis Medical Officer of Durham.

STACK, EDWARD HUGH EDWARDS, M.B., B.C.Cantab., F.R.C.S.Eng., L.R.C.P.Lond., Honorary Ophthalmic Surgeon to the Bristol Royal Infirmary.

THOMAS, WILLIAM REES, M.D.Lond., Medical Superintendent of the State Institution for Mental Defectives at Moss Side, Liverpool.

Births.

CLAPHAM.—On August 8th, at 31 Fourth Avenue, Hove, the wife of Roderic Arthur Clapham, M.A., M.D., of a daughter.

LONG.—On July 14, at Coimbatore, Southern India, the wife of Major W. Christopher Long, I.M.S., of a daughter.

MASON.—On August 1st, at 49 George Street, Portman Square, W., the wife of G. A. Mason, M.A., M.B., B.C.Cantab., of a son.

SMITH.—On August 6th, at St. Oswalds, Upper Norwood, the wife of Major Lionel F. Smith, R.A.M.C., of a son.

TURNER.—On August 4th, at 2 St. Philip's Place, Birmingham, Olive Elgood Turner, M.S.Lond., wife of Alfred Charles Turner, of a daughter.

Marriages.

AMEZ-DROZ—DODD.—On July 30th, at Zurich, Switzerland, Henri Amez-Droz, civil engineer, son of the late Louis Auguste Amez-Droz, of Neuchatel, to Alice Maud Dodd, M.B., B.S., eldest daughter of Arthur and Alice Dodd, of Fairlawn, Redhill Common, Surrey.

DARBYSHIRE—BRIGGS.—On Thursday, July 30th, at St. Martin's-in-the-Fields, Trafalgar Square, Stewart C. Darbyshire, M.R.C.S., L.R.C.P., of Grosvenor House, West Ealing, grandson of the late Colonel Casson, of the 84th Regt. (York and Lancs.) and 57th (1st Middlesex), to Alice, second daughter of the late Colonel John Briggs, of the 82nd (2nd South Lancashire) and 9th (2nd Norfolk) Regiments.

SEWELL—DEAN.—On August 5th, at St. Paul's Church, Chichester, Captain R. B. Seymour Sewell, I.M.S., second son of the Rev. Arthur Sewell, Chaplain of the Order of St. John of Jerusalem, and Mrs. Sewell, of Sutton Veny, Warminster, Wilts, to Dorothy, youngest daughter of the late William Dean and Mrs. Dean, of Chichester.

Deaths.

ACTON.—On August 8th, suddenly, at The Glen, Westend, Hants, after a long illness, Walter Acton, M.R.C.S. and L.S.A., aged 88.

BONE.—On August 8th, 1914, at a Leeds Nursing Home, Kate, the beloved wife of Dr. William Arthur Bone, of London and St. Albans, aged 45 years.

CLARKE.—On August 7th, at Brighton, Harry Edward Clarke, M.R.C.S. and L.R.C.P., of The Avenue, Bedford Park, London, the youngest dearly-loved son of Rev. D. G. Clarke, Rector of Puttenham, aged 37.

DUNCAN.—On August 9th, at Barrow, as the result of an accident, Lieut.-Col. S. E. Duncan, R.A.M.C. (ret.), of Shrewsbury.

ELKINGTON.—On August 5th, 1914, Henry Percival George, Lieut.-Col. R.A.M.C., second son of the late Deputy-Surgeon-General A. G. Elkington, Brigade of Guards, aged 50.

FARQUHARSON.—On July 27th, 1914, at Barnburgh Grange, James Duncan Farquharson, M.B., C.M.Glasg., of Newcastle-on-Tyne, aged 56.

LITTLE.—On August 9th, at 33, Dorset-square, N.W., John Fletcher Little, M.B.Cantab., M.R.C.P.Lond., aged 71.

RIMINGTON.—On August 5th, 1914, in York County Hospital, as the result of an accident, Hugh Rimington, L.S.A., of the Leyster Sanatorium, Great Buddon, Chelmsford, aged 28.

HULME DISPENSARY.
DALE STREET, STRETFORD ROAD, MANCHESTER.
WANTED a HOUSE SURGEON duly registered and fully qualified. Salary £180 per annum. Annual increase £10 to £200, with apartments, coal and gas. Applications, with testimonials, at once to Honorary Medical Secretary.

THE MEDICAL PRESS AND CIRCULAR.

"SALUS POPULI SUPREMA LEX"

VOL. CXLIX. WEDNESDAY, AUGUST 19, 1914. No. 8.

NOTES AND COMMENTS.

Health in the Field. To assert that disease claims a greater number of victims among armies in the field than injuries sustained in actual warfare is merely to state that which history records and past experience confirms. Since the fighting strength of troops is in direct proportion to their powers of physical endurance, the need for insisting upon the observance of the principles of military hygiene becomes paramount. We are glad to note that a memorandum upon the importance of early resort to antityphoid inoculation has recently been issued by the War Office. The risk of infection by unsuspected typhoid carriers must always be reckoned with when large bodies of men are massed together in camp and are exposed to contact with the inhabitants of a country in which typhoid fever may be present. As a means of further safeguarding the health of our troops, it is understood that a new unit has been formed out of the Royal Army Medical Corps, under the title of the Sanitation Corps. Consisting of one hundred trained officers and men, the new unit is to be entrusted with the special duty of testing food supplies and water, more especially with a view to the detection of poison, and they will also take charge of all sanitary arrangements. The prompt disinfection and removal of organic refuse and the adequate supply of pure food and water can best be carried out by officers specially versed in the science and art of military sanitation.

Open-air Hospitals for the Wounded. AMONG the numerous offers of help received by the War Office in the shape of housing accommodation for the sick and wounded are many buildings such as schools, dwelling-houses, church institutes, etc. However much one may appreciate the generosity of the donors, it is obvious that the construction of many of these buildings is most ill-adapted for the reception of patients. As Professor Robert Saundby has pointed out, in a recent letter to the *Times*, an abundance of light and fresh air are a *sine qua non* in the treatment of the sick and wounded. These essentials are not always conspicuous even in modern buildings, unless they have been specially designed, while in many more ancient habitations they are so lacking as to render them wholly unsuitable as receptacles for the sick. Professor Saundby's condemnation of the policy of "converting" buildings not intended to serve as hospitals, and his plea for a greater use of balconies and the erection of sheds in public parks, are based upon a sane recognition of the value of open-air in the treatment, not only of consumption, but also of diseases and injuries the results of war. Needless expense and damage to property may both be avoided by the putting up of temporary open-air hospitals in convenient situations. The managers of those hospitals that are fortunate enough to possess gardens or balconies attached to wards know full well their value in reducing the average length of stay of in-patients, whilst institutions deprived of these accessories to convalescence are correspondingly handicapped.

Hospital Routine in War Time. SINCE so many of the visiting and resident staffs of the voluntary hospitals have been called away or have offered themselves for active service with the Forces, some re-arrangement of the ordinary routine of hospital life must necessarily follow. In some cases out-patients are being discouraged, only urgent cases being received as casualties. At one large provincial infirmary the out-patients' waiting-hall has been converted *in toto* into a sick ward, the patients themselves being asked to attend at an adjacent public dispensary. As a large number of hospitals have agreed to place a certain number of their beds at the disposal of the War Office the view has been expressed in some quarters that the claims of the poor in the immediate vicinity of the institutions in question will suffer in consequence. It should be stated at once, in justice to the hospital authorities and in the interests of the public, that every possible means will be taken to prevent the infliction of any hardships upon the regular *clientèle*, so to speak, of the civil hospitals. Under ordinary circumstances a number of incurable cases are admitted to general hospitals for short periods for teaching purposes or for the trial of some new therapeutic method. There are also certain surgical cases in which the postponement of an operation for a few weeks, or even months, will not prejudice the health of the patient. Here are two classes of cases, therefore, that need not be admitted when the exigencies of war demand bed space for the treatment of the sick and wounded in action.

The Doctor's Horse and Motor. A LITTLE extra squeezing of beds may be legitimately allowed in an occasion of emergency such as may arise at any moment, though in times of peace any overcrowding would, of course, be justly condemned by a watchful medical superintendent. Not only in his capacity as a hospital physician or surgeon is the civilian-medical practitioner directly affected by the war. In many other ways his practice is influenced, whether this be of a consulting, cash, or panel character. At a special meeting of the South Western Branch of the British Medical Association held at Exeter the other day, the need was discussed for approaching the military authorities with a view to the consideration of the question of locomotion for medical men, as if their horses or motor-cars were requisitioned for service medical work in certain districts would come to a standstill. We understand that the Association itself has made powerful representation to the War Office, urging that medical practitioners' horses and cars, especially in country districts, should not be taken by the military authorities, except as a last resource. It is of the greatest importance that all delays in providing medical assistance to sick persons should be avoided, particularly at the present time when the hands of most medical men are extra full. It is gratifying, therefore, to learn that the Army Council has issued orders to the effect that where possible the horses, and in all cases the motor-cars, of country practitioners should not be requisitioned.

No Unqualified Help.

Several of the Universities and other examining bodies have risen to the occasion and have announced that they are prepared to hold a special final examination to enable candidates who have completed their medical training to qualify as soon as possible, so that they can offer for active service. In all directions offers of help, in the shape of free treatment, are being announced for the dependants of Regulars or Reservists or even for the men themselves at the various general and special hospitals. It is not surprising to find that the unqualified person, seeing an opening for self-advertisement, has edged his way to the front, for in the *Daily Graphic*, dated August 10th, we read that a certain Mr. Frank Matthews, "the well-known bone and joint specialist, offers his services to the military authorities . . . either at his surgery in Charing Cross Road or at the military bases. Mr. Matthews will hold himself in readiness to be at the command of the authorities at a moment's notice." Since we have failed to find the name of this enterprising gentleman in the *Medical Register*, we may presume that the authorities will politely ignore his offers of "assistance." Bones and joints are too important parts of our anatomy to be trifled with, much less to be "treated" when out of gear by anyone not in possession of a registrable medical qualification. Perhaps the General Medical Council may have something to say in the matter. The camp-follower in medicine is always a person to be regarded with mistrust and to be kept at a respectful distance.

LEADING ARTICLES.

IS CANCER INFECTIOUS?

Those members of the public who have been induced to favour the *Times* as their daily newspaper, by its reduction in price, must have been struck by the similarity which its columns bear to another journal of the same group, under the same proprietorship. The policy of the editors of the journals concerned seems to be, that having once published an article assuming a particular position, to ensure that no opportunity is afforded the public, in their columns, of learning the other side of the question, beyond meeting the demands of immediate journalistic expediency. This policy may be condoned in the trivial matters of ordinary life: even if it amuses the more discerning of the readers of the journals concerned, the public are not likely to suffer from its practice. The case, however, is very different when questions of medical importance are similarly dealt with. By this means the public are liable to be much misled; to form opinions which are erroneous, or to adopt popular notions, which are opposed to scientific teaching. In this respect, we think, the editor of the *Times* has been unwise in leading the readers of that journal to suppose that cancer is infectious. Some weeks ago the *Times* published an article dealing with the question of so-called cancer houses. The impression conveyed by that article was the scientifically absurd one that houses in which multiple cases of cancer occurred were the *locale* of cancer infection. Then followed the usual correspondence in support of that view, and a very few on the other side were published in which its absurdity was portrayed. In short, the editor having made himself responsible, as a layman, for the assertion that cancer was probably infectious, availed himself of his position to maintain it, despite the evil consequences which the assumption of that belief would be liable to create in the minds of his readers. A very grievous result has now probably followed. Naturally, it has been argued, if houses can become the source of cancerous infection, why not persons who are suffering from cancer? That is to say, the effect of the dissemination of this unproved doctrine has probably already led to serious aggravation of the misery of the victims of incurable cancer who are now liable to be regarded askance and avoided as though they were suffering from some deadly infectious disease. Until the germ of cancer has been definitely isolated, if, indeed, it be caused by a micro-organism at all, we are not in a position to say deliberately whether malignant disease be infectious or not. Recent research would appear to favour the view that there is no danger whatsoever of infection, but the public, unfortunately, will scarcely be satisfied with a mere expression of opinion, even though this emanate from a high scientific authority. Thus does a leading lay journal, in attempting to discuss matters of medical concern, become the medium of the dissemination of misconception and errors of fact the absorption of which by the public mind is calculated to be productive of an inconceivable amount of mischief. The fact that the *Times* should have raised the question of cancer houses at all only emphasises once again the need which exists in this country for an inquiry into the subject of cancer by a Royal Commission. The director of the Cancer Research Fund has always strenuously opposed this suggestion. He has now a concrete example of the inexpediency of his opposition. Public opinion could not avail itself against the considered and weighty report of a Royal Commission, but public opinion has been created in favour of the infectivity of cancer and cancer houses, a subject which the commission would have very properly and naturally dealt with, and nothing which the Imperial Cancer Research Fund now says or does to the contrary is likely to carry conviction to the public mind. The Imperial Cancer Research Fund may be recognised in official circles as the authority upon cancer in this country; but the fact, however, remains that so long as lay journals exist to create and publish opinions contrary to its reports, so long will the public mind be influenced accordingly. Had the short-sighted policy of opposing a Royal Commission on Cancer in this country not been persisted in, the Imperial Cancer Research Fund would now be unassailable in its authoritative position, official and otherwise.

THE TREATMENT OF LEG ULCER.

At a visit to the casualty, surgical, or dermatological department of any large hospital one may generally come across several cases of ulcer of the leg of all grades of severity. The treatment of these lesions always seems more or less of a reproach to medical science, for it is mostly handicapped by the fact that the patients are seldom able to rest the limb. The ambulant treatment, therefore, of an ulcerated leg, be it varicose or of an uncertain origin, presents a clinical problem which is not easy of solution. If syphilis be the cause of the ulcer the treatment is somewhat easier, for in the face of modern specific remedies few syphilitic ulcers refuse to heal. It is the large, indolent and sloughing ulcers, with evidences of deficient nutrition and impaired vitality, that sometimes prove a veritable bugbear to the practitioner. From time to time the appearance of a new drug or method which promises to promote rapid cicatrisation is hailed with delight, only to fall into disuse after trial. It may be that sufficient attention is not paid to the *technique* of the application, especially to the preparation of the base of the ulcer first, for it is little use applying any healing agent in the presence of active suppuration. It has been said that most, if not all, ulcers of the legs will disappear after prolonged rest in bed and ordinary cleanliness, and there is a good deal of truth in the assertion. But the practitioner will seldom be able to enforce such a period of rest, for the majority of cases of ulcerated legs occurs in working folk who have to be up and about. The most he can do is to strap the ulcer, or apply a zinc-gelatin-paste with bandaging of the whole limb. If he wax enthusiastic over one of the newer cell-proliferants he frequently has his ardour damped by the complaint of the patient of the pain and irritation produced thereby. When the use of certain aniline dyes, notably scarlet red and fuchsin, came into vogue for the treatment of leg ulcer, it was thought that at last the perfect remedy had been discovered. Similarly, with the discovery of allantoin in the root of the common comfrey, our hopes were once more raised. It must be admitted, however, that the use of these remedies, intelligently applied, having due regard for individual idiosyncrasy, has constituted some advance, if slight, in the therapeutics of leg ulcer. The whole subject has been ably reviewed by Dr. A. Ravogli (*a*) in a paper read before the Section of Dermatology at the Sixty-Fifth Annual Session of the American Medical Association, at Atlantic City, N.J., in June last. The typical stages of ulceration are divided into those of necresis, sloughing and reparation, and upon these periods depends the selection of the treatment. In the first stage the application of pastes is regarded as injudicious, weak solutions of sodium bicarbonate or biborate being preferred. The use of nascent oxygen, ichthyol, or boric ointment is to be preferred in the second stage, while the process of reparation must be carefully watched over, all young granulations being protected from infection and irritation, so that excessive proliferation may not occur. The practice of massage or of the division of the cutaneous nerves surrounding the ulcer, after the manner of Nussbaum, may be advisable to assist the final process of healing. At the same time, the internal treatment of associated morbid conditions cannot be dispensed with. Provided that every indication for treatment be duly recognised and suitably met, there is no reason why the treatment of chronic leg ulcer should not be placed upon a more satisfactory footing than it has hitherto been.

CURRENT TOPICS.

The Profession in Ireland and the War.

It is impossible as yet to foresee to what extent the ordinary conditions of professional life in Ireland are going to be affected by the war. Comparatively few medical men in that country are connected with the Territorial Forces, though many have promised their services to one or other of the two bodies of Volunteers. If the Volunteers are organised and taken over by the Crown the services of these gentlemen will doubtless be required. In the meantime nearly all the young qualified men in the country have offered themselves for active service, though up to the present few have been called. There is, indeed, some discontent among these young men at the fact that those who personally offered themselves at the War Office have been selected in priority to those who, in obedience to instructions, handed in their names at Dublin Castle. There is little doubt, however, that in time they will all be wanted. Their departure will inevitably cause some difficulty in the working of the hospitals, as most capable and spirited young practitioners will prefer the chance of service in the field to the comparatively hum-drum routine of a house surgeon's work. The several licensing bodies are, it is true, endeavouring to meet the unusual demand by holding special final examinations. Perhaps a more serious inconvenience to the hospitals is caused by the calling in the hospital reserves, and the volunteering for service of nurses who were not in the reserve. In another way, the sudden demand for training in first aid and home nursing work is affecting medical practitioners. Classes are being rapidly formed, and an appeal has been made by the St. John Ambulance Association to the members of the staffs of the Dublin hospitals to

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(*a*) *Journ. Amer. Med. Assoc.*, Aug. 1st, 1914.

assist by giving lectures in first aid, home nursing, and ambulance work. So great is the interest in such work at present that there is a danger that many persons, mentally or physically unfit for surgical or nursing work, will join the classes and prove a hindrance to really effective progress. We notice that certain of the Dublin hospitals are accepting a limited number of young women for work in the wards for periods of training of a few weeks. The wisdom of such a course is open to question.

The Results of the Friedmann Treatment.

IT is only within the past few months that it is possible to form an opinion of the results of the treatment of tuberculosis carried out in America by Friedmann early last year. Dr. Mannheimer, of New York, has recently (*a*) published a note on the present condition of eighteen patients treated under his supervision by Friedmann. The results are certainly not encouraging. In no less than seven cases abscesses developed at the site of injection. Of the entire number of patients three were lost sight of, and three are known to be dead. Of twelve others who are still under observation, in seven the disease progressed and in five the condition is unchanged. It is obvious that the results are not any better than might have been expected without the use of any special form of treatment. The occurrence of abscess as the direct result of inoculation in so high a proportion of cases is distinctly disquieting, as it destroys Friedmann's claim that his vaccine is innocuous. Judged by results, therefore, there does not seem to be any further justification for the use of Friedmann's preparation, and, as he has refused to divulge the secret of its manufacture, we are prevented from forming any opinion as to the possibility of eliminating the evil results.

The Healing Power of Nature.

SUCH is the mystery of human existence that the supremest efforts of art and science, combined for the relief of the physical woes of mankind, are powerless to influence the processes of disease, unless they act in accordance with or otherwise assist the operations of Nature. This mighty hidden factor often completely upsets our calculations, for Nature is quick to resent any interference with her methods and plans, and she wreaks fierce vengeance, long-delayed, perhaps, but nevertheless unrelenting, upon the too self-reliant practitioner who has left her out of his reckoning. In spite of her sternness, Nature is in most cases a sure, if a slow, healer. There are those in the present day who clamour loudly for "Nature study" and "Nature cures," unmindful of the fact that the most successful physicians, teachers and philosophers are those who, consciously or unwittingly, follow Nature's principles and imitate her methods. It was a happy thought that inspired Dr. J. Arthur Thomson, Regius Professor of Natural History in the University of Aberdeen, to select for his "Popular Lecture" delivered at the recent annual meeting of the British Medical Association at Aberdeen the subject of the *Vis Medicatrix Naturæ*. Full of the most interesting and instructive biological allusions, Dr. Thomson's able discourse fully vindicated the propriety of delivering a scientific address to which laymen are invited as well as medical men. We all, professional men and laymen alike, and especially the former, need to be reminded of the healing power of Nature, particularly in the way in which she ministers to our minds, only too often distracted by the wear and tear of modern civilisation, by steadying and enriching our lives with beautiful impressions.

Summer Drinks.

IN the summer time all men's fancies turn to thoughts of liquid refreshment. By which statement we do not mean to imply culpable neglect of cool limpidity in other seasons of the year, but in the summer the call of the cup becomes insistent. Now there is a vast but often unrecognised difference between liquids and drinks. Liquids for our present purpose are the fluid essentials of our physiology. Drinks are something more. They usually lack the crude ordinariness of necessity which is replaced by other qualities appealing alike to our conscious senses and æsthetic attention. They may be divided into two classes, those which contain alcohol and those which are supposed not to be in this category. The first class is easily dealt with. It consists of wines, diluted spirits, and the various beers. Its qualities are familiar and its consumption immense. The second class is vaguer and more variegated. Probably one of the chief reasons for the admittedly too great consumption of alcohol is the non-existence of a non-alcoholic beverage that is worth drinking. One would think that a pleasant drink with some character of its own and a habit of thirst-quenching were not beyond the bounds of human ingenuity. Yet so it seems to be. As things are, water is about the only non-alcoholic drink that can be drunk without ill-effects to the adventurer. Tea and coffee have good stimulant powers, but they are cumbersome to brew. And the generality of artificial drinks are terrible. They consist mostly of sugar and CO_2 in solution with cloying, pungent or bitter flavouring. A few sips make a full man, not a happy, satisfied man, but an aerated one with his attention centred on his distended epigastrium. It must be bad for him, but that does not affect the retailers. "Minerals" are cheap, handy, and show a large margin of profit, and the public seems to demand effervescence. CO_2 tickles its palate and temporarily increases its flow of saliva. In a short time it wants another bottle. That is why we live in a time of effervescent bibularity.

Medical Journalism in Australia.

THE appearance of the first number of the *Medical Journal of Australia*, dated July 4th, betokens the incorporation of the *Australasian Medical Gazette* and the *Australian Medical Journal* as the one official journal of the Australian branches of the British Medical Association. Union is strength, and there can be no doubt that the result of the amalgamation of the two journals abovementioned will be a concentration, as well as a conservation, of energy and a considerable gain to the members of the British Medical Association in Australia. Under the able editorship of Dr. H. W. Armit, who is well known in London medico-literary circles, the medical profession in Australia need not fear that their representative journal will not faithfully reflect the progress of scientific medicine or fail to give a decisive lead in matters of medicopolitical importance. In the leading article of the new issue we read that "a scientific journal is not judged according to its standard of literary excellence. It is the material—the essence of the thing—which is paramount; the form of expression is subsidiary." Only to the chosen few is it given to clothe crude scientific facts in the attractive literary garb of a Ruskin. Nevertheless, we venture to assert that the style of our medical journals, regarded as a whole, is in no wise inferior to that

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(*a*) *Medical Record*, June 13th, 1914.

of other technical periodicals. In the words of Dr. A. L. Kenny, the President of the Victorian Branch of the British Medical Association, we heartily extend to our new contemporary and to its leader the wish, "*Prospere, procede, et regna.*"

Sanitary Service in War Time.

We have already called attention in these columns to the effect upon the health of the community of the rapid withdrawal of large numbers of medical men from the country. The shortage of qualified practitioners is bound to react upon the physical welfare of the public, unless special means are taken to prevent such a calamity. The Local Government Board, ever on the alert in these matters, has just issued a circular to county councils and sanitary authorities, drawing attention to the supreme importance of maintaining the efficiency of the sanitary service of the country at the present time. It is pointed out that it is essential that there should be no relaxation of the activities of local authorities in the prevention and control of epidemic diseases, the protection of water supplies from contamination, the promotion of child welfare, and in the securing the wholesomeness of food supplies and the general sanitary condition of each area. On this account, therefore, it is imperative that all vacancies in the minor sanitary staff should be filled up. The actual steps which may be open to local authorities to replace medical officers of health who are absent on naval or military duty will vary in different districts. In many areas adequate temporary arrangements may be made by co-operation between the county and district authorities or between neighbouring district authorities. The Board will be glad to be informed of each case in which a medical officer of health or chief sanitary inspector or inspector of nuisances has been given leave of absence for naval and military service, and of the steps taken to arrange for the temporary discharge of his duties. Only in this manner can it be hoped to carry on the sanitary service of the country without any break and consequent loophole for disease to creep in unsuspected.

Photography in Medicine.

Of all the ancillary arts and sciences that have come to the aid of medicine photography may justly be reckoned one of the most important. No record of disease can be said to be complete without a photograph depicting the morbid condition, such as the size and extent of a tumour, the facial expression, the existence of some deformity or rare configuration of surface, etc. The camera has also proved a valuable detective, as when the existence of a measles rash is revealed on the photographic plate before it has become visible to the eye. It is superfluous to mention the extreme aid that photography has rendered to surgery in conjunction with the X-rays. To be a pathological photographer, or rather a photographer of pathological objects demands a good deal of special skill. The lack of this is constantly seen when ordinary photographic artists are asked to take some interesting morbid condition of the body. The resulting print, unless special instructions have been given, generally results in the display of an abundance of clothes and background, while the interesting eruption or growth is quite small and inconspicuous. Another more recent development of the art, colour photography, has just begun to demonstrate its utility for illustrating various pathological conditions, and not a few modern medical text-books have taken advantage of the method for special plates. The Paget method appears to promise great things in the direction of the faithful reproduction in natural colours of pathological subjects. Several transparencies of cases of skin disease made by this process were in evidence in the museum at the annual meeting of the British Medical Association at Aberdeen, and they were unanimously voted a striking success.

The Shick Reaction.

The present is an age of laboratory tests and specific reactions. With the growth in our knowledge of bacteriology and serum-therapy this must inevitably be the case. One result is that the art of diagnosis is in danger of being reduced to a question of inoculation and the interpretation of the consequent reaction. The latest test of this kind is known as the "Shick reaction" in diphtheria, an account of the practical application of which is given by Drs. W. H. Park, A. Zingher, and H. M. Serota, of the Research Laboratory, Department of Health, New York City (*a*). The reaction depends upon the local reaction of minute quantities of diphtheria toxin when injected intracutaneously. If antitoxin be absent or in insufficient quantity for protection, a positive reaction appears in twenty-four to forty-eight hours, consisting of a circumscribed area of redness and slight infiltration, measuring from 1-2 c.m. in diameter. This persists for about a week and gradually fades, leaving a brownish pigmentation. To prevent the appearance of the reaction it is estimated by Shick that at least one-thirtieth of an unit of antitoxin per c.c. of blood is required, but Behring states that so small a quantity as one-hundredth part of an unit of antitoxin will protect against the disease in uncomplicated cases. The authors tested the reaction in 700 patients, and they find that the test serves as a reliable and convenient index of the susceptibility or otherwise of individuals to diphtheria. It is also of service in the diagnosis of clinically doubtful nasal diphtheria. The Shick reaction may, therefore, be regarded as a useful adjunct to our means of detecting diphtheritic infection.

PERSONAL.

Dr. H. S. Birkett has been appointed Dean of the Medical Faculty of McGill University, Montreal.

Dr. Bethel A. Solomons, F.R.C.P.I., has been appointed Visiting Gynæcologist to Mercer's Hospital, Dublin.

Mr. H. G. Parker, F.R.C.S.Edin., L.R.C.P.Edin., has been appointed Honorary Aural Surgeon to the Bolton Infirmary and Dispensary.

Dr. James Carrick, M.B., B.S.Glasg., Assistant Medical Officer of Health for Paisley, has been appointed an Assistant Tuberculosis Officer for Sheffield.

Dr. Henry Pratt Newsholme, M.B., B.Ch.Oxon., M.R.C.P., D.P.H., at present Assistant Medical Officer of Health for the county borough of Southend, has been appointed to a like position in the Surrey county health department.

Mr. Walter Joseph Harper, L.R.C.P.Lond., M.R.C.S.Eng., of Braunton, Devon, was the recipient the other day of a suitable testimonial as a mark of esteem and affection upon the occasion of his retirement from practice in the district.

(*a*) *Archives of Pediatrics*, July, 1914.

CLINICAL LECTURE

ON

DIAGNOSTIC APHORISMS IN GYNÆCOLOGY. (*a*)

By ARTHUR E. GILES, M.D., B.Sc., F.R.C.S.,

Surgeon to the Chelsea Hospital for Women: Gynæcologist to the Prince of Wales' Hospital, Tottenham.

An "aphorism" is defined as "a concise statement of a principle in science," and this definition expresses with sufficient accuracy what I wish to convey in the present remarks. That is to say, that I want to place before you in concise terms some of the principles that are helpful in gynæcological diagnosis.

I must premise that the statement of a principle implies a generalisation, and a generalisation is an expression of a substantial truth combined with a fractional element of error.

Aphorisms are not free from this flaw. They are general truths containing a germ of error: in other words they formulate the general rules and probabilities, and do not take cognisance of the exceptions and possibilities.

Such aphorisms as I have to offer you are therefore intended to suggest the truth in diagnosis; but they do not claim to represent "the whole truth and nothing but the truth."

Of Diagnosis in General.

A few observations on diagnosis in general may be permitted. The first is that a diagnosis based on symptoms and unsupported by an examination of physical signs contravenes the fundamental principles of medical ethics; and anyone treating a patient on the strength of such a diagnosis might very well be regarded as "guilty of conduct infamous in a professional respect."

Without entering upon the merits or demerits of the Insurance Act and contract practice, I may say that if the "panel system" fosters the treatment of the poor on the basis of their symptoms and without due examination, that system is a dishonour to the medical profession.

I have seen the phrase, "We make mistakes; other people commit sins" A wrong diagnosis after due examination (a thing that happens to all of us) is a mistake, and a pardonable one: a wrong diagnosis arrived at without due examination (a thing that happens to the other fellows) is a sin; medically speaking, it is "the unpardonable sin."

That an examination was not allowed is no excuse for a wrong diagnosis. If you cannot convince the patient that an examination is necessary, quit the case; for it is better to lose a patient than to lose reputation. Moreover, do not treat first and examine afterwards; for then you may be called upon to treat not only the disease, but also the effects of your own treatment.

After an examination has been made, if still in doubt admit it. If you do not know enough about the case to satisfy yourself, it is not safe to assume that you know enough about it to satisfy the patient: this is not only indifferent ethics, but also bad policy. A celebrated American politician once said: "You can fool all the people part of the time, and you can fool part of the people all the time, but you cannot fool all the people all the time."

While I am giving advice I may offer this piece to the beginner: When in doubt, do not commit yourself to a diagnosis and then call in a specialist, for this may tax the specialist's ingenuity too severely.

A final word of advice may prove wholesome for the specialist as well as for the beginner. In the presence of the obvious, do not overlook the possible: it does not follow, because you have found something, that there is nothing else.

Of Pregnancy.

Probably more mistakes are made about pregnancy than about any other condition in gynæcology.

When a woman says that she menstruates during pregnancy, either she does not menstruate or she is not pregnant. Menstruation is a preparation for pregnancy, and when this has arrived Nature is not so futile as to go on preparing for it.

Pregnancy can never be excluded on *à priori* grounds of spinsterhood, widowhood, separation, social position, religious belief, political "convictions," or the alleged previous removal of organs; nor on the patient's affirmation that it is impossible.

Some women cannot be convinced that they are pregnant until they see the baby, and not always then.

It is unsafe to state, on the ground of the condition of a woman's pelvic organs, that she cannot become pregnant unless you have yourself removed her uterus, ovaries and tubes, and even then it is wiser to say that it is improbable.

There are many symptoms and signs of pregnancy, and all of them can be simulated save one: the one infallible sign is to hear the fœtal heart.

In doubtful cases it is to be remembered that pregnancy may be complicated by the presence of other conditions.

Of Tumours.

Speaking generally, during the child-bearing period, a tumour with missed monthly periods is pregnancy; a tumour with unaltered menstruation is non-uterine; a tumour with increased menstruation is a fibroid. When a woman has a large tumour, if she is very thin it is probably ovarian; if she is very fat it is probably uterine fibroid. We may vary this observation by saying that cystic tumours are associated with wasting, and solid tumours, except malignant ones, with adiposity.

A fixed tumour in a woman at or past the menopause suggests malignancy; in a young woman it suggests an inflammatory mass or an inflamed tumour.

A supposed ovarian cyst can sometimes be removed by passing a catheter, and a supposed solid tumour by giving an enema.

When a woman in her teens or early twenties has an irregular tumour suggesting fibroids, look out for pus tubes. Fibroids are rare before the age of twenty-five.

A swelling in connection with the uterine appendages may be a small ovarian cyst, tubo-ovarian inflammation or tubal pregnancy. The physical signs of the three conditions may be indistinguishable, and the diagnosis will turn on the history. Speaking generally:—

An adnexal tumour without symptoms is ovarian.

(*a*) Delivered at the Polyclinic, May 20, 1914

An adnexal tumour with or following xanthorrhœa is tubo-ovarian.

An adnexal tumour with scanty hæmorrhage following mixed periods is tubal pregnancy.

If a swelling is unilateral the probabilities are against tubo-ovarian inflammation; if it is bilateral, the probabilities are against tubal pregnancy.

It is well not to assume too readily that there is a tumour only on one side merely because none can be felt on the other.

When a small, firm tumour can be felt on the left side, it is well to make a rectal examination. Such a tumour may be a carcinoma of the rectum or of the sigmoid.

With an adnexal tumour, the temperature is an indifferent guide. It may be normal with pus-tubes, and it may be raised with tubal pregnancy and with an ovarian tumour with twisted pedicle.

When symptoms and signs point to an inflammatory mass in the pelvis, the channel of infection should be sought. Infection conveyed up the unbroken genital tract leads to salpingitis, pus-tubes and peritonitis; infection carried through the broken genital tract leads to pelvic cellulitis and pelvic abscess. When the symptoms and signs of a pelvic tumour are not classical, operative difficulties and complications may be expected.

Of Uterine Cancer.

When hæmorrhage occurs after the menopause, with no previous history of menorrhagia, the condition must be regarded as carcinoma until the contrary is proved.

Cancer of the vaginal portion of the cervix is found only in parous women. Cancer of the body of the uterus is found nearly exclusively in nulliparæ. Endo-cervical cancer is found in both, but much more often in parous women.

The treatment of uterine hæmorrhage without examination at or after the menopause closely resembles manslaughter.

The scantier the hæmorrhage the greater the urgency; for profuse hæmorrhage is nearly always due to simple tumours, whereas hæmorrhage due to cancer is nearly always scanty, except in the late stages. Hardness of the cervix is not a sign of malignancy; friability is. Wasting and an offensive watery discharge are not essential to the diagnosis of cancer, but they are signs that the disease is far advanced. When a woman has cancer of the uterus, the younger she is the worse is the prognosis.

Of Extra-Uterine Pregnancy.

A history of missed periods, followed by a brown discharge, leaves the thoughtful physician pondering on the subject of tubal pregnancy until the diagnosis is settled.

With a history of early miscarriage and no fœtus passed, a ruptured tubal pregnancy must be thought of.

Missed periods followed by median pains and free loss suggest uterine miscarriage; but, if followed by lateral pain and scanty loss, extra-uterine pregnancy.

When tubal pregnancy is associated with uterine hæmorrhage, the tube has always ruptured or aborted, and the gravid tube and hæmatocele become a fixed mass. Therefore, a mobile tumour associated with uterine hæmorrhage is not a tubal pregnancy.

Tubal pregnancy may be closely simulated by a retroverted or laterally deviated gravid uterus, and by a small ovarian cyst or distended tube associated with an early impending miscarriage.

Of the Menopause.

Normally, the menopause is no more a critical period than is puberty; the cessation of menstruation should be as uneventful as its onset, but both epochs are liable to be associated with some functional disturbance. The menopause may engender functional disorders but does not cause disease. Disease may, however, be synchronous with the menopause.

Menstrual infrequency or diminution in the flow may be functional, and attributable to the approaching menopause.

Increase in the frequency or the amount of loss is due to disease.

Increase in hæmorrhage at or near the time of the menopause, or any hæmorrhage at all after the menopause, renders an immediate examination necessary.

The menopause does not cure disease any more than it causes it. To tell a patient to wait for the menopause is as bad as sending her to a quack.

Of Symptomatic Disorders.

Dysmenorrhœa and menorrhagia are not pathological entities, but symptoms of which the cause must be ascertained.

When dyspareunia is present from the first, it is usually due to vaginal stenosis or vaginismus; when it comes on later, it is usually due to tubo-ovarian disease.

When coitus is followed by hæmorrhage in later life, look out for urethral caruncle, cervical polypus, and malignant disease.

When sterility is primary and associated with dysmenorrhœa, it is probably due to stenosis and ante-flexion; when it is associated with a history of xanthorrhœa, it is probably due to salpingitis.

When sterility is not associated with definite physical signs, the husband should be examined before the wife is treated.

When a woman complains of pelvic pains assume that there is a definite physical cause until such has been excluded.

Never call a woman neurotic when you do not know the condition of her pelvic organs.

The Last Word.

There is no sign or symptom that may not be fallacious. The most experienced judgment is fallible.

Note.—*A Clinical Lecture by a well-known teacher appears in each number of this Journal. The lecture for next week will be by R. Oswald Moon, M.D. Oxon., F.R.C.P.Lond., Consulting Physician to the Western General Dispensary, Marylebone; Physician to the Hospital for Diseases of the Chest. Subject: "Mitral Stenosis, its Prognosis and Treatment."*

ORIGINAL PAPERS.

ACUTE GENERALISED INFECTIVE PARALYSES IN ADULTS.

By W. B. WARRINGTON, M.D., F.R.C.P.,
Hon. Assistant Physician, Royal Infirmary; Examiner in Medicine, The University of London; late Physician to the Northern Hospital, Liverpool.

Every now and then we are confronted in practice by cases of rapid and widespread paralysis the extent of which is so great as to cause much alarm, sometimes justifiable. No obvious cause is, as a rule, to be discerned. Although paralyses of this acute nature present marked similarity, yet that they are of a different pathology is proved by the course of the disease and the marked difference in prognosis. Several acute diseases may attack the nervous axis and its peripheral nerves and bring about an extensive paralysis: (a)

(1) Acute toxic polyneuritis—the causal agent is rarely recognisable, and few opportunities have occurred for a study of the anatomical basis.

(a) *Liverpool Medico-Chirurgical Journal*, January, 1914.

(2) Acute poliomyelitis—doubtless due to the same infective organism which causes the ordinary form of infantile paralysis, and characterised by the same pathological lesions.

(3) Landry's paralysis—a disease the nosological position of which has been much discussed, but which, in the writer's view, is certainly a distinct clinical and probably an equally distinct pathological entity.

The importance of a diagnosis is obvious when it is stated that in acute toxic polyneuritis the termination is nearly always a complete recovery; in Landry's paralysis the event is either rapid death or complete recovery; whilst in poliomyelitis a fatal result is rare but some permanent damage usually remains.

I shall give a typical illustration of these several types, and also add an account of a case of acute ascending myelitis, which, although comparable because of its rapid and terrible course, yet if its symptoms are known can hardly be confounded with the other forms. A particular feature of interest attached to this case is that the evidence seems to show that it was due to the organism of mumps, certainly a most rare sequela, though this disease sometimes has cerebral and meningeal complications.

Acute toxic polyneuritis.—Thomas J. was a young man of twenty-two years of age. He was a total abstainer and of previous good health. The only antecedent of any importance which could be discovered was that for the last few months he had constantly been wet through.

His illness began abruptly with headache, vomiting, and paræsthesiæ of tingling and numbness in the feet and hands. It is not known whether he was feverish: the course of the disease during the time he was under observation was afebrile. Weakness soon appeared in the legs, and in a week he was unable to stand. If he were supported and attempted to walk, he moved his limbs about in a wild ataxic manner. On examination of the muscular power, both lower limbs were greatly affected, but the distal parts much more so than the proximal segments, so that, whilst he could barely move his feet or toes, there was some power in the knee-joint and even more in the hip. Slight wasting in the front of the leg was visible.

The same distribution of loss of power was found to be present in the upper limbs: the small muscles of the hand were distinctly wasted, the grasp and movements of the interossei weak, whilst the larger elbow and shoulder joints retained a fair amount of power.

The cranial nerves also shared in the paralysis; the lower part of the face on the left side and the left vocal cord were obviously weakened in their movements. The remaining cranial nerves were normal; and at the time he was first seen the thorax, abdominal muscles, and the diaphragm were acting well. There was no affection of the sphincters.

Electrical testing showed distinct diminution, though not an absence, of faradic excitability in the weakened muscles.

A striking feature was the muscular hyperæsthesia, but we were not able to detect any loss of cutaneous sensation or inability to appreciate passive movement. All the deep reflexes were absent, but the abdominal, epigastric, and plantar reflexes were present. A slow but uneventful progress to complete recovery took place.

The diagnosis was not difficult, but, before commenting on this case, I will relate an example of generalised paralysis which I have recently met, and am still in some doubt whether we have to deal with polyneuritis or poliomyelitis.

Mr. W., a patient of Dr. Sclater, aged twenty-six years, was quite well on the day previous to the onset of this illness, which began with a feeling of weakness and feebleness, vomiting, slight fever, and a dry patch on the back of his throat. At the end of a week double vision appeared, but this only lasted for a few days. This symptom came on before any signs of paralysis. Then the left leg became weak, and, the loss of power rapidly invading all four limbs, he was not able to sit up or move at all, and there was "twitching" all over the body.

There was no difficulty in swallowing, nor any other affection of the cranial nerves. There was a slight hesitancy in passing water, but no other bladder trouble. Pains in the thigh were marked, and there was a great tenderness of these muscles. No tingling of the feet or fingers was evident, and he apparently began to improve rapidly.

About three weeks later, in the right upper limb there was distinct atrophy of the first dorsal interosseous muscle, though this and the other small muscles of the hand could be moved, but the second or third fingers could not be extended. The deltoid was very feeble, but all the other muscles showed some, though diminished, power. In the left upper limb the deltoid was powerless, but all the other muscles, including the small muscles of the hand, could be moved. The right lower limb had recovered and could be lifted from off the bed, and he could extend the toes, although the paralysis was more marked in the feet than in the muscles of the thigh. In the left lower limb the loss of power was extreme, and only very slight movement was possible in the knee- and hip-joints, and there was barely any power present in the extensors of the feet. There was no loss of sensation either superficial or deep. The diaphragm and thorax were acting well. The ankle-jerks and the knee-jerks were gone; the plantar response was feeble, but the abdominal and the epigastric reflexes were brisk. Electrical testing showed that all the muscles of the upper limbs reacted to faradism. The right deltoid gave a very feeble response, and with the right triceps the response was just barely perceptible. The left deltoid responded feebly, but the triceps, latissimus dorsi and pectoralis acted fairly well. All the muscles of the right lower limb acted to a strong current, but the only muscle excitable in the left lower limb was the quadriceps.

From personal experience and the studies of Dr. Farquhar Buzzard, the following are the points on which one mainly relies in making a diagnosis:—

	Toxic Polyneuritis.	Poliomyelitis.
Onset ...	Quick, but not sudden, malaise, fever.	More sudden, malaise, fever.
Extent of paralysis	Limbs and especially their peripheral parts most affected, trunk may be invaded, and most marked incidence upon the diaphragm (Buzzard).	Paralysis at first more symmetrical and universal in the limbs, then one or several groups of muscles rapidly improve. Thorax and abdominal muscles may be profoundly paralysed.
Cranial nerves	Face most commonly affected, sometimes vocal cord, palate, oculo-motor nerves.	The face perhaps is the most commonly affected: conjugate ocular paralysis is highly significant.
Sensory ...	Muscular hyperæsthesia, marked paræsthesiæ, and slight objective loss of sensation.	The complaint more of a pain in the back, discomfort and cramps, pain in moving the limbs, not so often paræsthesiæ.
Superficial reflex ...	Retained often.	Lost.
Electrical reaction	Usually lost or diminished.	Retained in some groups of the muscles.

It has been my fortune to see two cases of Landry's paralysis with complete recovery. If the opportunity occurs to watch this paralysis from its inception, I do not think its diagnosis presents great difficulties.

The steady march upwards, segment by segment, the paralysis of the abdomen and thorax, and then of the diaphragm, which may cause the fatal termination; or, if this is escaped as it were by a hair's-breadth, from some remaining power of the respiratory muscles, the progress of the disease to attack the centres in the medulla, again threatening life, makes the typical disease at least a striking and dramatic picture.

The first case that I relate I saw with Dr. Shaw a number of years ago. M. was a young man of 20 years of age, who had some febrile illness, supposed to be influenza, some two weeks previously, which compelled him to stay in bed for about ten days. He then went back to his work, and on the Wednesday suffered from pains in his legs, of a dull, aching character, and compained of a feeling of numbness and tingling in the feet and in the fingers.

He was seen by me on the Sunday, four days later, and was then lying helplessly in bed. The lower limbs were greatly paralysed, so that he could not lift them from off the bed; there was practically no movement in the psoas-iliacus group and barely perceptible power of abduction and adduction of the thigh muscles. There was the feeblest power to move the knee-joint, and he was able to make very slight movement of the ankle-joint; the calf muscles appeared to be weaker than the extensor.

In the upper limbs the shoulder girdle muscles were markedly affected, and also the muscular movement of the elbow-joint. The wrist and the fingers were also paretic, but the loss of power was not so great as in the larger muscles. The thorax, abdomen, and the diaphragm moved well. The optic discs were normal, and there was no objective disturbance of sensation. Knee-jerks and ankle-jerks were absent, and also the plantar and epigastric reflexes. All the paralysed muscles acted strongly to faradism.

On Tuesday the patient was worse, and with the exception of slight power to extend the toes, the lower limbs were absolutely paralysed. The weakness had also progressed in the upper limbs, so that now he could not make any movement with the fingers or wrist; and although the loss of power in the shoulder girdle remained very great, the weakness did not seem to have progressed as much in the muscles moving the wrist and fingers. The thorax barely moved in respiration, and the diaphragmatic contraction was feeble.

The cranial nerves were now affected, and there was complete left-sided paralysis of the face and of the palate. The speech was slow, drawn, and monotonous, but there was no difficulty in swallowing.

The optic discs and eye muscles were normal. All the muscles still reacted to faradism.

On Thursday the absolute powerlessness of all the four limbs continued, the patient's face was still paralysed, and there was now difficulty in swallowing. The speech had somewhat improved, but the thorax showed some signs of expansion, and the diaphragm was also acting a little. The pulse was about 100, and the temperature raised a degree or so. There was no trouble with the sphincters, and the patient's mind was quite clear. Gradual recovery occurred and was complete.

The second case was very similar; my patient was a young man, aged 26, who a few days before he came under observation complained of stiffness and unsteadiness about his feet, and a day or two later of a difficulty in using his arms.

When I first saw him, about a week after the onset, the lower limbs were practically powerless and flaccid; all he could do was to feebly flex the thigh; the reflexes were absent, but sensation and electrical irritability remained. I found the abdominal and thoracic muscles and the diaphragm to be acting well. The upper limbs were also greatly paralysed. The muscles which move the wrist and fingers and the elbow-joint were practically powerless, and there was very little power in the small muscles of the hands. Above this level the muscles of the head, shoulder, and neck acted well.

He remained in this state for a week; then the paralysis advanced, the intercostals and abdominal muscles being paralysed, so that breathing was almost entirely by the diaphragm. The muscles of the neck became weakened, the sterno-mastoids were almost powerless, the face on the left side was paralysed, and the larynx barely moved with phonation or in swallowing.

At this stage the patient could not make the slightest effort to sit up or flex his head; diaphragmatic action appeared to be reduced to the minimum, dyspnœa became pronounced, respiration appeared almost to depend on the activity of the trapezius and the pectoral muscles.

Next the right side ofthe face became paralysed, and one felt that the slightest further spread of the disease must be fatal.

After a few days in this precarious state the intercostals began to expand the thorax, and power in the diaphragm returned, the face regained tone; then the muscles of the shoulders, the arms and hands; next the legs, the neck muscles, and the back muscles began to recover. Improvement continued, so that in five weeks, from being in a most desperate condition, the patient was able to sit up. Power rapidly returned, and in another week he could walk with a little help, whilst in a fortnight he was convalescent. Throughout the disease there was no atrophy of the muscles, no loss of sensation, no alteration in the electrical reactions, and no affection of the bladder.

The diagnosis of Landry's paralysis, if the case can be watched for a day or two, may not perhaps be so difficult. At the onset the pain and constitutional disturbance are less than in either toxic polyneuritis or poliomyelitis. The electrical reactions are of great importance.

Landry's paralysis is often fatal, and it has long been known that in these cases the muscles were excitable to the end.

My two cases show that this capacity for response continues, and at once forms a certain diagnostic point in distinction from poliomyelitis and almost so from toxic polyneuritis.

In conclusion, I relate the case of acute ascending myelitis, at once distinguished by the gross loss of sensation and the affection of the sphincters. My patient was a young girl aged 17, who had, with her brother, some ten days previously, bilateral parotitis, diagnosed, no doubt correctly, as mumps. On the Friday she complained of pain at the back of the neck, was up and walked on the following day, but had eventually to give up on account of the pains. On Sunday the pains were worse, especially on movement, and on Monday weakness in the legs and numbness set in. On Tuesday night the temperature rose to 101°, and she was slightly delirious. I saw her on the Wednesday, and she was lying in bed with her head kept to the left. She was moving restlessly, with clouded mind, but there was no obvious paralysis of deglutition or articulation, though she spoke with difficulty, the words lacking their normal volume, and she said that it seemed to her as if the food stuck on the back of her throat.

There was nystagmus in all directions, of long range and slow rhythm. The optic discs were normal. There was complete flaccid paraplegia with absent reflexes. The sphincter ani reflex was absent. The bladder was distended and dribbled.

The thorax was paralysed, but the muscles of the shoulder girdle supplied by the upper cervical roots and the diaphragm were acting well.

There was total anæsthesia on the right side up to the fifth dorsal segment, and on the left as far as the first lumbar segment. Above this, diminished sensation as high "as the neck-body line"—that is, to the level of the second dorsal—and this loss of sensation could be traced along the inner border of the upper limbs. There was obviously, therefore, an affection of the spinal cord reaching up to, but not involving, the fifth or sixth cervical segment. In the upper limbs there was great paralysis, especially in the fingers and the small muscles of the hand. The muscles supplied by fifth and sixth roots acted fairly well.

A week later the patient was obviously much worse; the face was cyanosed, little air was entering the lungs, and bubbling râles were heard. The thorax and abdomen were completely paralysed, the respiration being maintained by the feeble action of the diaphragm. The girl was wandering, the disease had spread into the higher part of the cervical enlargement, and anæsthesia had become almost absolute. Death occurred two days later.

TWO CASES ILLUSTRATING THE USE OF THE DIURETIC THEOCIN-SODIUM-ACETATE.

By CHARLES PEDDIE, M.A.Aberd., M.R.C.P. Edin.,

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Before beginning the description of the cases I may say that I have always employed the following formula:

℞ Theocin-sodium-acetate, gr. 80
Tr. Digitalis, dr. iss
Tr. Scillæ, dr. iij
Casc. Evacuant., dr. ½
Aq. ad, oz. viij
Sig.—A tablespoonful every four hours until further orders.

The tinctures I have prepared from Parke, Davis & Co's. fluid extracts made up to the proper strength with glycerine and chloroform water. In this way the use of alcohol, undesirable in kidney cases, is easily avoided. The preparation of fresh infusions advised by some writers is impossible for the busy practitioner and I have never had any cause to complain of the digitalis prepared as above.

Case 1.—Male, æt. 47.—This patient had been under the care of another medical practitioner for four months during which time instead of improving he gradually got worse. When I saw him first in February, 1911, there was extensive œdema of the lower extremities and a fair amount of ascites. He was also very much troubled with "dry heaving" as well as almost continuous belching of wind, a symptom very common in heart cases, and causing only momentary relief (this is a purely nervous condition, its cause is obscure and may be insufficient blood supply to the stomach). He also suffered from insomnia which was exceedingly difficult to relieve. The urine was loaded with albumen.

The first point of attack was the heaving and collecting of wind in the stomach, and this I was able to influence by hypnotic suggestion, the insomnia being also relieved by the same means. The suggestions were renewed twice a week for about three weeks and then discontinued. I prescribed the theocin-sodium-acetate mixture for him with remarkable results; the dropsy entirely disappeared within a fortnight's time, and the albumen even more rapidly. His intake of fluids was limited in order to assist the absorption as well as the elimination of fluids from the tissues. The biliary attacks and the blood pressure symptoms were treated as they arose.

The dietary prescribed was as follows:—

Breakfast, 8.30.—An egg lightly boiled, poached, or fried in bacon fat, with a little toast well buttered when cold. (I have found it an advantage in the preparation of toast to have it dried first in the oven before toasting in order to ensure its being crisp).

Dinner, 12.30—1.—Fish, fowl or chop with green vegetables cooked with plenty of butter.

Tea, 5 p.m.—A little China or detannated tea.

Supper.—Repetition of dinner with the exception that it was varied—if he had fish at mid-day he would get a chop or fowl in the evening etc.

He was a life-long teetotaler and a tablespoonful of brandy was prescribed with a little hot water, before he settled down for the night. It should be noted that he had very little milk, and practically a saltless diet.

In the end I was rewarded by his complete recovery in about five months.

He resumed work in the beginning of July and from that time until his death on October 21st, 1913, he never lost a day's work, even though he was kept at it from 6 a.m. until 6 p.m., without the chance of getting home for his meals. He did lose 3 hours' work about 3 weeks after commencing, but this was due to a bilious attack, brought on by a six-mile walk on Saturday, in a broiling sun. He thus remained perfectly well for 2 years and 4 months. On Monday, the 20th October, 1913 he returned from work, complaining of a slight pain in the chest and feeling a little out of sorts. On retiring, the pain gradually got worse. About 7 a.m., I was telephoned for, but on arrival found that death had ensued from heart failure.

Case 2.—Male, æt. 57.—In November of 1912 a patient consulted me, complaining of shortness of breath and inability to get through his work with the wonted ease. On examination I found nothing organically wrong, but the patient was exceedingly stout and had been overworked, and I believe the heart action had been interfered with on account of the fat. There was no trace of albumen or sugar in the urine. I prescribed a heart tonic combined with a mild diaphoretic, and strongly advised a holiday, which, however, he was unable to take.

I did not see him again for nearly a year, and heard that he was being attended by another practitioner. I was informed that on September 18th, 1913, he went to see a specialist in Liverpool who gave the prognosis that with rest and careful dietary he would get perfectly well. On October 1st, I was asked to take the case, which had been given up as hopeless by the *locum tenens* acting for his usual attendant. When I saw him he was in a semi-moribund condition, fighting for breath, the pulse rate being 136. He had œdema of the lower extremities and great scrotal swelling.

On examination of the heart, beyond rapid action and a murmur at the apex which I put down (rightly as it turned out) as hæmic, there was nothing in the condition to compel an unfavourable prognosis. There was much albumen in the urine. He had been taking a lot of beef tea, soda-water and milk, but this I at once stopped and put him on a dry diet, limiting the intake of liquids to the minimum consistent with his condition, viz., about a pint of soda-water and milk during the 24 hours. I insisted, however, on his rinsing out his mouth frequently to allay thirst. His breath was very offensive and I prescribed pil. hydrarg. gr 5, to be followed in the morning by 2 oz. of mist sennæ co. From the first he had a dose of the theocin mixture every four hours, and was kept on it until diuresis was thoroughly established and œdema considerably reduced. As a rule he passed 20 oz. of urine per day.

On October 6th, I reduced the dosage to twice daily, as I was afraid of overworking the kidneys, although both the albumen and the murmur had now disappeared. During this time the heart had kept steady and by the 10th had become 90 to the minute.

His dietary included boiled milk and toast for breakfast, rice and stewed fruit sweetened with saxin. As he was doing so well, I now put him on poached eggs for breakfast, fowl and chicken for dinner, and milk and rusks for tea, expressly forbidding beef tea or soup. One evening he had been given, expressly contrary to my instructions, a large plateful of chicken soup. The consequences were disastrous—albumen returned at once and by the 12th his temperature had gone up to 99.6 and his pulse to 124. He was becoming delirious, the urine passed dropped to 15 oz. on the 12th, 8 oz. on the 13th, and for eight hours on the 14th there was absolutely none. I at once passed a catheter and drew off about 10 oz. of urine of exceedingly strong odour and loaded with albumen.

Then the fight began again "*de novo*" for his life. In a short time I had the satisfaction of seeing his kidneys resume their function with a vigour that proved embarrassing. The theocin mixture was withdrawn and a mixture of sodium nitrite, digitalis and nux vomica substituted.

In a month's time he was able to be up, shortly afterwards got downstairs and, when the weather permitted, he was out and about. To-day he is eating anything and everything he fancies, takes fairly long walks, and hopes presently to be able to take up his old duties again.

These two cases I put forward on account of their desparate nature, the patient in each case being practically *in extremis* when treatment was begun. I have had much experience with theocin-sodium-acetate in a large number of less serious cases and have practically invariably had the most satisfactory results.

LIME SALTS IN CHILDREN'S DISEASES. (*a*)

By J. C. McWALTER, M.A., M.D., F.F.P. and S.

All diseased children have deficient lime in their tissues, and a smaller proportion of calcium in their bones. All weakly animals have less lime in the osseous framework than their healthy brethren. At once it seems sound sense and rational therapy to give some sort of lime to a delicate child, but so soon as we do, we encounter the pharmacologist who assures us that our labour is in vain, and our attempt but a proof of our ignorance. We are assured, in fact, that all these efforts to introduce lime into the system are futile, and that none of it is retained—that normally, in fact, it passes out unchanged.

Two or three incidents have lately tended to resurrect the faith of the profession in the efficacy of lime salts. One is the marvellous influence which the administration of thyroid substance has in certain developmental diseases of infancy. Coincident with these observed good results comes a theory that hypothyroidism results in an excretion, or at best in a deficient absorption of lime salts, the thyroid secretion acting either as a solvent for the lime salt, or as a kind of mordant fixing it in the tissues which most needed it.

Another factor in exciting faith in the use of lime salts is the experiment of Dr. Alexis Carrel. He showed that an actual growth of tissue can take place outside the body if it be placed in a solution containing the necessary salts—as chloride of sodium, phosphate of lime, etc. We have then staring us in the face the broad fact that metabolism is impossible without calcium, that the simplest tissues hunger for it, and are rendered powerless to function or to grow without it, and that defective growth, as well as all diseased conditions, are associated with a deficiency of calcium compounds. There is the further important fact to which the French school attach great importance—namely, that tuberculosis is, chemically, a decalcifying process, that its essential manifestation is an exaggerated excretion of calcic and other salts, and that its rational treatment, apparently, must be in increasing the intake of suitable mineral salts, mostly calcic.

If lime salts do good, how shall we give them? Lime water is an old and favourite remedy, but the pharmacologists tell us that it only acts as a simple alkali, and represents no more than an equivalent in alkalinity of solution of hydrate of potash. They say it is simply futile to administer it in milk, so far as concerns its calcium contents, because milk normally contains from four to eight times as much calcium as limewater. On the other hand, the experience of all practitioners for centuries, as well as of those shrewd observers, the mothers of families, seems to prove a real influence in limewater in modifying intestinal and stomachic disorders, which certainly is not exhibited by a weak solution of potash or soda.

Limewater, we shall agree, is useful, but the half grain or so of lime which it contains per ounce is certainly a weakly way of giving a calcium salt. Much more useful is a solution, now almost gone out of use, the saccharated solution of lime, which contains about 14 times as much lime as limewater. Children who in their earlier years are probably given some suitable salt of lime are much less liable to summer diarrhœa, to hæmorrhage if enteric fever sets in, and to tuberculous affections, especially of the bones, than those whose lime content is subnormal. Fixity of tissue is the result of sufficient lime content in the organism. The bones are hard, wiry-like; the teeth are strong; there is no tendency to fluxes, whether of the intestinal tract, the mucous membranes, or from the nasentic system.

A very suitable way to give calcium is in the form of powder—carbonate of calcium and precipitated phosphate of calcium. They can be mixed with sugar or sugar of milk, and may be given freely in about half-doses or doses twice or thrice daily, blended with a little milk.

The pharmacologists will assure us that these salts are perfectly inert, and pass out unchanged. Possibly this may be true of 95 per cent. of the salt—if all remained in the organism doubtless the retention would give rise to much inconvenience, but the proportion which is really required to be retained in order to satisfy the needs of the organism is very small—a couple of grains a day would be ample to restore the healthy fitness. The tartrate and lactophosphate of lime seem particularly useful in cases complicated with rickets.

(*a*) Paper read at the Annual Meeting of the British Medical Association, at Aberdeen, July 30th, 1914.

THE CHOICE OF THE METHOD OF OPERATION IN THE TREATMENT OF GASTRIC AND DUODENAL ULCER,

WITH A REVIEW OF MY EXPERIENCE ACCUMULATED IN THE LAST TEN YEARS. (a)

By PROF. FREIH. VON EISELSBERG, M.D.,
Vienna.

In spite of all the progress in the diagnostics of gastro-intestinal diseases, amongst which I place Röntgen examination first, the choice of the method of operation in gastric ulcer and its complications can best be made at the autopsy *in vivo* when the abdominal cavity is opened.

It is most important that the operator should satisfy himself whether there exists an ulcer with an unhealed surface or a healed ulcer—in fact a scar—and whether the ulcer is situated at the pylorus or at a distance from it. When in possession of these facts he is in a position to decide which operation is to be recommended, whether gastro-enterostomy only, or pylorus exclusion, or, lastly, a resection.

The operations for the acute and chronic conditions met with in gastric ulcer are amongst the finest achievements of modern surgery.

That the operation is a gratifying one and justly fills the surgeon with pride and satisfaction will be confessed by anyone who has witnessed how a patient with an acute perforation of a gastric ulcer is rescued from imminent peril of his life by laparotomy, irrigation of the peritoneal cavity and suture of the ulcer.

Or, again, how a patient with a chronic pyloric stricture is relieved of his chronic illness and weakness and converted into a healthy and flourishing human being by gastro-enterostomy.

Gastro-enterostomy especially has come to be considered as an operation most frequently attended with beneficial results, and to-day there is no operation so often done in the gastro-intestinal canal—excepting, of course, appendix resection. It is now recognised as the universal method of treatment in all cases of ulcerated processes of the stomach, where it is possible to do it.

But the happy results of gastro-enterostomy just now mentioned are not evident in all cases. In cases of persistent ulcer particularly its cures are not so numerous as in the cases of ulcers already healed. In cases when the ulceration is at a distance from the pylorus the result of gastro-enterostomy is not so good as in cases when the ulceration is situated at the pylorus. To my pupil, Clairmont, especially is due the credit of having shown this.

And, finally, one must always bear in mind that possibly a carcinoma may be lurking behind in cases of tumour formation, in which cases obviously only removal is efficient, while a gastro-enterostomy can have, at most, a palliative value.

In consideration of the fact that gastro-enterostomy has become so usual in the treatment of gastric ulcers, it behoves us to look very carefully into its merits.

My deductions will be particularly directed to this question: the value of gastro-enterostomy as compared with other operations for gastric ulcer; and especially will I define the uses of resection of the stomach

My former pupil, Prof. Clairmont, has helped me very considerably in the collecting and arranging of this great mass of material. He will shortly publish a large work dealing with our united experiences in the department of the operative treatment of gastric ulcer. Out of a total of 334 operations of gastro-enterostomy for gastric ulcer, 17 died after the operation (in 12 of these cases the ulcer was recent), and of this number 8 died from causes referable to the ulcer itself (for instance, hæmorrhage from the ulcer, progressive ulceration). Thus it will be seen that gastro-enterostomy in some cases not only did not stop the hæmorrhage, but apparently induced it.

Of the 31 "unrelieved" cases in 8 the ulcer was situated at the pylorus; in 11 the ulcer was situated at a distance from the pylorus; 8 were duodenal ulcers; in 4 the situation of the ulcer was not localised; there were adhesions, and probably it was a question of duodenal ulcers in these cases—total, 31.

The interesting point is demonstrated: that ulcers situated at a distance from the pylorus *(Pylorusfern)* are, by a long way, not so much influenced by gastro-enterostomy as those situated at the pylorus.

Standing at the head of the causes which are responsible for this failure of the operation to cure is the development of a post-operation—peptic ulcer of the jejunum.

This occurred 7 times in 334 gastro-enterostomies. Of this formidable complication after gastro-enterostomy I will speak fully later on. Finally, with regard to the cases shown under the heading "died at a later period," only a limited number of causes of death are known.

(1) 13 patients died of cancer of the stomach (or about 10 per cent.).

(2) In 6 cases continuance of the growth and development of the ulcer after the operation was the cause of death: (a) 1 patient developed the morphia habit through the pain he suffered and died; (b) 1 hæmorrhage caused death; (c) 1 death followed perforation of the ulcer; (d) 1 patient had very severe pain and hæmorrhage—jejunostomy was performed, but the patient committed suicide; (e) in 1 case the pains continued, but further details are unknown.

(3) 3 patients died of tuberculosis of the lungs.

(4) 1 patient died of tumour of the suprarenal body.

(5) The cause of death in the remainder of the patients is unknown.

We see, therefore, that of 41 patients who died a long time—most of them years—after the operation of gastro-enterostomy, 13 (that is, nearly one-third) died of carcinoma, whilst 6 died through the progressive continuance of the symptoms of the ulcer.

In 36 cases of ulcerative processes of the stomach and duodenum the operation of unilateral pylorus exclusion was performed. This operation was in some instances done in the case of still ulcerated and bleeding ulcers in the neighbourhood of the pylorus, and in some instances in cases of ulcers localised in the duodenum, for which situation pylorus exclusion appears to be especially suitable. Twelve operations were performed during 1913; the interval after operation is too short.

Eleven patients made a complete recovery after the operation. Some of these belong to the years 1905 and 1906.

Under the heading "improved" are included even cases complaining of insignificant symptoms. They might show most of them under the heading "cured."

Of the 4 cases which were "unrelieved" it is to be noted:

(1) In one case the extirpation of the whole ulcer was done for continuance of the pains, with the result that a cure followed.

(2) One patient still suffers from attacks of hæmorrhage.

(3) Two patients developed symptoms of peptic ulcers.

Finally 3 cases died at a later date, about whom the following is to be noted:

(1) One case developed cancer of the stomach.

(2) Two patients developed peptic ulcer.

SOME REMARKS ON PEPTIC ULCER.

As the topic of the development of peptic ulcer again occurs here, I should like to go into the subject with more details, especially as it seems to me that the knowledge of peptic ulcer of jejunum is not so general as it deserves to be.

As H. Braun of Göttingen, the discoverer of this serious complication of gastro-enterostomy, has already pointed out, peptic ulcer appears to be caused by the continuous passage of the acid gastric juice into the small intestine (duodenum), causing the mucous membrane to be eroded and giving rise to the growth of an ulcer. This lesion seems to occur in varying intensities. In the less severe degrees symptoms taking the form of simple pains, such as an ulcer usually causes, can occur. In such a case—as in all ulcerative processes—repair on the part of the organism can bring about a cure. In these cases of spontaneous cure contraction and stricture of the gastro-enterostomy wound area seem to take place very easily. I cannot explain in any other way what I have already observed twice—once in Königsberg and once in Vienna—namely, the *shrinking* of the gastro-enterostomy fistula, which I made of normal size to one-third of its size without any appreciable induration occurring. Kehr described years ago the spontaneous closure of a gastro-enterostomy fistula, and I think it was caused by such a peptic ulcer. I believe that all these contractions are effected through the agency of a not very intensive peptic ulcer, which heals and thereby closes the fistula. In other cases the ulcer itself spreads wider, and with the serious and tragical issues of this we have shortly to deal to-day.

(a) Paper read before the Clinical Congress of Surgeons of North America, in London, July, 1914.

I have observed the formation of a peptic ulcer 7 times in 317 gastro-enterostomies. Added to this I have found a peptic ulcer in 5 patients on whom gastro-enterostomy had been done by other surgeons and on whom I myself did a relaparotomy, so that in all in 12 patients a peptic ulcer was verified at the autopsy *in vivo.* Finally came 4 patients in addition in whom symptoms of a peptic ulcer followed unilateral pylorus exclusion. In these 17 cases the chief symptom was the development of a very painful induration in the neighbourhood of the gastro-enterostomy fistula, the discomfort and pain becoming so great that one could scarcely touch the spot. In 15 of these cases the diagnosis of peptic ulcer was verified by the subsequent relaparotomy. Two patients were not operated on. Either another gastro-enterostomy, jejunostomy or finally an excision of the whole ulcer was done at the ensuing relaparotomies; in some cases more than one of these operations was done either on one occasion or in several stages.

My table of the cases in which peptic ulcer developed shows that in six patients a fresh gastro-enterostomy was done at the relaparotomy, but the ulcer itself otherwise not touched. Only one of these patients was substantially improved after an interval of 9 months. One was unrelieved, one was lost. Two others died, one of the two fatal cases dying immediately after the operation from peritonitis and the other later from the relapse of the ulcer.

In one patient, as the gastro-enterostomy did not bring the hoped for relief, jejunostomy was done in addition—by this measure the stomach was entirely placed out of action—whereupon a very marked improvement followed, which has now been maintained for nine months.

In the case of a later patient the operations were carried out in the reverse order—namely, first a jejunostomy and later a gastro-enterostomy, and I beg your attention for the history of this illness:

He had hæmorrhages pointing to duodenal ulcer with a general high acidity of 77 and free hydrochloric of value of 66 (compared with the normal 60—45). The laparotomy was done on July 27th, 1912, when an ulcer was found in the duodenum, for which unilateral pylorus exclusion was done. After this operation the acidity did not diminish—anyhow, not so much as is usual—and hæmorrhage recommenced. Therefore on October 14th, 1912, another relaparotomy was done and a very large peptic ulcer was found, which seemed to be non-operative. A jejunostomy was now done, and a completely satisfactory improvement took place. The patient believed himself now quite recovered, and urgently wished to dispense with the catheter. Unfortunately we yielded to the very strongly expressed wish—alas! all too soon. The catheter was left out, and the fistula had spontaneously closed on January 27th, 1913. In three months severe pain returned and melæna appeared. A relaparotomy was again done on April 23rd, 1913, and the peptic ulcer was found as bad as it was before. It did not appear now to be capable of removal, and a gastro-enterostomy ante-colica anterior, plus an entero-anastomosis was done. Then improvement followed, but not for long. At the beginning of 1914 the patient was again in the clinic with all the manifestations of a gastric colic fistula. He would not consent to further operative treatment. As before, the acid value (acidity) of the stomach was very high, and the patient appeared to me to be lost. This man had too high an amount of hydrochloric acid, and one should not have dispensed with the jejunostomy so soon. Maybe one could still treat him successfully with azijmon (magnes cholata Glaessner).

In the case of a female patient we obtained a favourable result with jejunostomy alone. A girl, æt. 27 (who in her seventh year had been successfully operated on by Billroth for hydatid of the liver), had had pains in the stomach over a period of two years, and the typical symptoms of stenosis of the stomach. June 7th, 1910, gastro-enterostomy retro-colica posterior was done. Soon after the commencement of a good recovery a hard tumour in the abdomen developed, attached to the anterior abdominal wall. Suspecting a peptic ulcer, relaparotomy was done, and the suspicion proved to be correct. In consideration of the extension of the tumour, and the fact that it was intimately connected with surrounding parts, only a jejunostomy was possible (August 31st, 1912). It was done nearly three months after the first operation. The patient for three years was given all her food by the fistula, and the tumour disappeared again entirely, so that one was able to feed her from above and allow the fistula to close. The simple removal of the catheter was sufficient, and the patient has now been quite cured for 2 years. This case illustrates the success of jejunostomy.

In the case of another patient, gastro-enterostomy and jejunostomy were done at the same time. This patient had been operated upon on September 25th, 1909, for a very high general acidity combined with an unhealed ulcer which extended into the duodenum; a unilateral pylorus exclusion was done. After a short time the pains commenced again, and the patient was relaparotomied on January 22nd, 1910, and a peptic ulcer found situated at the place of the gastro-enterostomy. Therefore a new gastro-enterostomy ante-colica anterior, plus entero-anastomosis, and lastly, on account of the high acidity, a jejunostomy as well was done. The patient died with symptoms of hæmatemesis. At the *post-mortem* five recent ulcers were found distal to the jejunum stump; one of the ulcers was on the point of perforating. In the place of the old gastro-enterostomy was an annular ulcer, which appeared to be turning into a gastro-colica fistula.

In two cases, first gastro-enterostomy and then the resection of the peptic ulcer was done. One patient had to be operated on three times—namely, a resection; later by a new gastro-enterostomy ante-colica anterior plus entero-anastomosis were done. One month's relief from symptoms followed, then stomach trouble again occurred and the development of a painful tumour in the neighbourhood of the stomach, then on June 10, 1913, relaparotomy again was done, the peptic ulcer was resected widely, the incisions passing through the quite normal tissue, and a fresh gastro-enterostomy ante-colica anterior plus entero-anastomosis made. Then followed an improvement lasting only a short time, and stomach trouble again set in, and on November 30, 1913, the patient died with symptoms of a gastro-colic fistula.

Finally in three cases resection of the whole ulcer was performed, and, of course, at the same time a fresh gastro-enterostomy fistula was established. This was necessary because we could not make a direct suture of the wound of the fistula.

In the case of the first patient a new gastro-enterostomy plus entero-anastomosis was applied after resection of the peptic ulcer, whereupon there was at last improvement. In the case of the second patient the subsequent history was lost sight of. One patient died after this resection.

This shows that the growth of a peptic ulcer of jejunum presents a very serious complication; even repeated operations where really severe measures are employed are useless, and patients have succumbed to their peptic ulcers at last. Other authors have also noted the gravity of this same complication, in which repeated radical measures are necessary. Of these authors I mention v. Haberer, of the Innsbruck clinic.

If we inquire into the causes of these ulcers, high hydrochloric value of the gastric juice must be mentioned before all. In some cases the patient had vascular disease, either an arteritis and endarteritis or a periarteritis.

I have observed this formidable complication of peptic ulcer in a surprisingly large number of cases and I cannot tell why I should have met with it more frequently than other surgeons. I should not like to say how much *technique* has to do with it. Peptic ulcers appear to me to be more frequent during the last years, and I am inclined to attribute its frequency to the fact that open or unhealed ulcers are operated on more frequently than before.

It may be that many peptic ulcers which are known to cause much tumorous formation and severe symptoms have led surgeons to think that cancer was present, and so the question of further operations has been laid aside.

Great care in the after treatment of cases may possibly go far in the prevention of the development of peptic ulcer. For peptic ulcer which has already declared itself a total excision is the best treatment.

A short time ago I operated on just such a case, on which the primary gastro-enterostomy was performed elsewhere—an exceptionally difficult one, where the whole peptic ulcer together with the loop was excised. I made the blind suture of both openings of the jejunum, and then the implantation of the distal one with the stomach and the proximal one with the distal one. So far the progress of the cure has been rather satisfactory.

What I wish to emphasise is that whenever possible the peptic ulcer should be excised, as in my experience neither gastro-enterostomy nor jejunostomy are sufficient in themselves, and in many cases both operations combined are of no avail.

We have already mentioned among the cases five patients on whom the first gastro-enterostomy operation was performed by other surgeons. I am therefore somewhat sceptical when I hear from other surgeons that they have never met with a peptic ulcer.

Cases in which Excision of the Ulcer was Done.

In the nine cases of death after operation the following proved to be the causes :—

(a) Six times post-operative peritonitis—namely: four times caused by leakage of gastric juice (in spite of the strongly acid gastric juice the discharge from the ulcer is often highly infected; it has repeatedly been shown to contain streptococci); once caused by leakage of the duodenal stump; once a chronic peritonitis was present.

(b) On a patient pylorus resection after method Billroth II. was done; an ulcer recurred which led to a fatal hæmorrhage. *In this case the total acidity was enormously high—104—here even resection was unable to prevent the repeated formation af an ulcer.* This patient had a very strong tendency to the development of peptic ulcer.

(c) One patient died later from the formation of a new ulcer, which perforated.

(d) One patient died forty-eight days after the operation method Billroth I. had been performed. He died of a secondary stenosis of the gastro-duodenal suture. In this case a gastro-enterostomy might easily have been helpful.

Subsequent Results of Resection.

(*a*) The 41 cases shown as cured are all quite well (but 9 of them were first operated on in 1913).

(*b*) First improved, afterwards relapsed: (1) In one case only an excision of the ulcer and at the same time a gastro-enterostomy retro-colica posterior was performed; (2) in one case a resection by method Billroth II. was made.

(*e*) Unrelieved 2: (1) In this case a wedge-shaped excision of the ulcer was done, then stenosis at the place of excision followed, and therefore gastro-enterostomy ante-colica anterior plus entero-anastomosis was performed, since when the patient is cured. This is direct evidence against the method of excision of the ulcer, and the operation should be replaced by resection. Whether in this case the repeated formation of the ulcer was traceable to a process analogous to the formation of a peptic ulcer must be left undecided. Wedge-shaped resection can easily lead to a sharp kinking of the vessels, and so may lead to a disturbance in the circulation and its resulting consequences—such as cicatrices or perforations. (2) One case resection Billroth II., 1911. Patient had recurrence of the trouble.

Died 2.

(*d*) One patient died after three years of stomach trouble; one patient died after three years two months of cancer.

Subsequent results of resections (Table 5) showed good results. 41 cases are cured.

In the case of improvement followed by relapse after resection (Billroth II.) had been done, it should be observed that the patient was well for 1½ years, and then began to suffer pain in the left side.

The second case of excision which was not cured had relaparotomy performed on account of recurring trouble. In spite of a wedge-shaped resection a stenosis of the stomach had developed.

Finally, in a series of cases jejunostomy alone was performed. We need not wonder at the high mortality of the operation, as it was performed in the weakest and the worst of all the cases, when the conditions were so complicated and nothing else was possible, or where the patients were so weak and worn out that one could only do the shortest operation it was possible to do under local anæsthesia. There are 24 cases with 12 deaths. Of these

8 died of peritonitis.

1 died of hæmorrhage from the ulcer, in other words, hæmorrhage in spite of the jejunostomy.

1 patient was found to have tubercular complications, from which he died.

1 died of degeneration of the heart muscle.

1 died of marasmus.

Twelve cases survived the operation. Of these

2 died later, both of carcinoma.

1 case was improved.

4 cases were lost sight of.

5 cases were completely cured.

So we can lay down the following

Rules for the Choice of Method

of operation on the basis of our observation :—

(1) For acute perforation the best method is the earliest laparotomy, with irrigation of the peritoneal cavity and closure of the orifice of the perforation. Whether gastro-enterostomy should be done afterwards depends on the situation of the ulcer and the general condition of the patient. If the patient is so weak that a gastro-enterostomy is out of the question, and can take nothing on account of the peritonitis being already far advanced, then jejunostomy is the most simple operation, as it makes it possible to feed the patient immediately after the operation.

I will here remark that in that other complication of ulcer which we fear so much—namely, hæmorrhage, operation is in most cases better left alone. When the hæmorrhage is severe, expectant treatment is best, for it has repeatedly occurred at the operation that the bleeding point could not be found. This is one of the most hopeless situations in which a surgeon can find himself, for the patient may die during the operation. On the other hand, it is surprising how much blood a patient may lose without dying. One can stop a good deal of hæmorrhage with rest in bed, ice bags to stomach, injections of gelatine, serum of horses, the administration of calcium lacticum. In hopeless cases we can make a trial of strong silver nitrate (1 in 1,000) solution for irrigation. In extreme cases jejunostomy should be performed, as one can give the stomach absolute rest and at the same time give the patient nourishment. If the hæmorrhage is severe, but has stopped for the time being, one should operate at once, before the hæmorrhage recommences.

(2) In typical stenosis of the pylorus, especially when, in the case of a long-standing ulcer, no new symptoms have occurred, gastro-enterostomy is the operation to be chosen. Sixty per cent. of cases of stricture of the pylorus are completely cured by gastro-enterostomy, while in the cases of open ulcer gastro-enterostomy is only successful in 41 per cent. of cases. Among 334 gastro-enterostomies for ulcer of the stomach and duodenum and its complicatio[illegible] 7 deaths occurred. Of these, eight (nearly half) occurred through con-

tinued bleeding from the ulcer; therefore gastro-enterostomy is not in all cases a complete protection against continuance of the hæmorrhage.

(3) Unilateral pylorus exclusion, which I did first in 1894, offers the greatest security in dealing with ulcer and its complications. It should receive special consideration if the ulcer is still fresh and causing much pain, and finally in cases of duodenal ulcer. It seems to offer the best guarantee of stopping hæmorrhage, even though this guarantee is no complete one.

(4) For ulcer situated at a distance from the pylorus simple gastro-enterostomy is not so feasible as in cases of ulcer of the pylorus itself. This my pupil Clairmont was the first to show, on the evidence of the collected experience of the clinic. It offers only 34 per cent. of successes, as contrasted with 54 per cent. successful cases of pylorus ulcer. Perhaps this can be partially explained in that an ulcer, situated away from the pylorus, produces fewer symptoms than one at the pylorus, and is therefore not recognised so soon, and is not operated on till much later and in a far more advanced condition.

(5) High hydrochloric acid values of the gastric juice by distinctly favouring the development of post-operative peptic ulcer detract much from the value of gastro-enterostomy and exclusion. Whether, as it almost seems, this post-operative peptic ulcer appears more easily after plyorus exclusion is not yet certain. We have done pylorus exclusion, especially in the cases of duodenal ulcer, when an ulcer appeared spontaneously in the small intestine, so that the small intestine already seemed predisposed to the formation of an ulcer.

(6) I have seen this post-operative peptic ulcer after operations done by myself and my assistants in the hospital as well as in patients who had been operated on by other surgeons, so that the growth of such an ulcer cannot be attributed alone to our perhaps faulty *technique*. The danger of the formation of a peptic ulcer is especially apparent in such cases where gastro-enterostomy was not strictly indicated. There are cases in which the history of the patient given by himself points to a gastric ulcer, but in which the signs of gastric ulcer are wanting at the laparotomy. There may be perhaps merely a relatively small stenosis of the pylorus, some adhesions or cicatricial tissue in the stomach. In former years it was more easy to decide on gastro-enterostomy in such cases. One regarded it as a safety valve, and also a prophylactic against a stenosis occurring later, and therefore being more serious. It is certainly an advantage if it can be easily done to remove the appendix at the time of any abdominal operation. All the same, a gastro-enterostomy should only be performed when there are special indications, and not in cases where the stomach symptoms are not severe, perhaps depending solely on the history given by the patient. Since H. Braun made us familiar with the serious complication of post-operative peptic ulcer of the jejunum great care is necessary with reference to it.

In cases when, by autopsy *in vivo*, I have found no tangible condition to indicate what one had expected to find, judging from the history of the case, and nothing to show what sort of an ulcer it was, I have done an exploratory laparotomy simply, and have refrained from doing what we may term a "concession gastro-enterostomy."

Among 15 cases of post-operative peptic ulcer of the jejunum which I have seen following gastro-enterostomies performed in my own clinic and some by other surgeons, a whole series of measures, some of them very complicated, were tried to reproduce normal conditions. Only one patient was cured, four improved, three unknown, two unrelieved, five died. So we see that peptic ulcer represents a very serious complication.

(7) In cases of ulcer situated at a distance from the pylorus, as well as in cases where there is a high hydrochloric acid value, transverse resection seems to me the operation of choice, as this of all other resections—as, for instance, extirpation methods of operation—gives the best security against subsequent complications. It must be made wherever there is the least suspicion that the tumour under consideration may be of a malignant nature. Of 269 patients on whom gastro-enterostomy was performed in my clinic, and who could be kept under observation for some time after, 41 died at a later stage, 13 from carcinoma, whilst six died with continuance of the symptoms of the ulcer. These later deaths speak decidedly in favour of the radical operation. Transverse stomach resection is also the correct operation when the ulcer has invaded neighbouring organs, as nothing except removal of the ulcer will be of any real assistance. Transverse resection, as planned by Riedel, also warmly advocated by Payr and Küttner, is a relatively safe operation. We had, up to January, 1914, done twelve transverse resections, to which six more cases can be added up to July 1st, 1914, making eighteen, and not a single death. I have never seen a peptic ulcer or any other after this operation.

When transverse resection cannot be done, method Billroth II. should be employed. Method Billroth I. is the third in order to be considered. Partial excision is to be entirely rejected.

In extreme cases only, when other operations are not feasible, jejunostomy may be considered, as has been already suggested in cases of perforated ulcer, when the patient is so weak that he must be fed immediately after the operation. Jejunostomy makes it possible for nourishment to be given even on the operation table. Further, in cases of peptic ulcer, in which for exceptional reasons excision is not possible, it is the easiest and most rapid of all operations for gastric ulcers, and above all it leaves the stomach undisturbed. As it has only been done in extreme cases, one cannot wonder that it has met with so little success, and that noticeably so many cases of peritonitis have been associated with it. They were patients whose peritoneum had lost its power of resistance.

Now a few remarks on the

Technique of the Operations

under discussion.

Gastro-enterostomy in my clinic is, whevener possible, done after the method of Hacker—retro-colica posterior, with quite short loop, or better said, without any length of bowel between the stomach and jejunum. The transverse mesocolon is found, and an aperture is made in a part comparatively free from blood-vessels; through this the stomach wall is pulled forward and then secured with a Doyen clamp at a place which is as near as possible to the greater curvature. The small intestine at the junction of the duodenum with the jejunum is brought to this spot and sutured. I will not go into a detailed description of the suturing. It is done in the typical way after Wölfler's method: (1) "Innere seromuscul. Naht"; (2) "innere mucosa Naht"; (3) "äussere mucosa Naht"; (4) "äussere seromuscul. Naht"; and then a few Lembert sutures applied.

It appears to me of especial importance that the slit in the mesocolon should be properly sutured. In Königsberg I once had an opportunity of observing a case of ileus in which a mesocolon slit, made during a laparotomy, was left unsutured by my predecessor in the professorial chair. This led to an internal strangulation. Since then I have always been especially careful in suturing the slit. My successor in Königsberg had to deal with the same complication in a patient of my own on whom I had performed gastro-enterostomy at a period before I had learnt the importance of this suture. Finally, we had a short time ago a bad case in our clinic, where, after a gastro-enterostomy, the suture, which secured this slit to the stomach, gave way and led to an internal strangulation.

The *technique* of pylorus exclusion was done thus in all the cases I have mentioned: The stomach is divided between two Kocher's clamps by a Paquelin's cautery, and both proximal and distal ends are sewn up by a continuous suture while the clamps are on. After removal of the clamps, a further suture is put in for safety beyond the first one. I lay very great stress on the importance of the fact that in unilateral exclusion the nerves of the stump may be severed. This happens only when they are cut through, and not when simply a band or fold of fascia is laid round.

The *technique* of transverse resection of stomach will be more easily understood from the picture than from a lengthy description. One is always astonished how far the two cut ends of the stomach retract after removal of the central portion, so that one always fears that the transverse suture will not be possible; but it is easier than one would think. It is necessary when doing this operation to supplement the longitudinal incision in the abdominal wall with a transverse incision in order to get plenty of room.

The *technique* of the jejunostomy is especially simple, and the method has not changed since I described it in 1894. It is simply adopting the principle of Witzelschen, substituting jejunum for stomach, and I would emphasise especially this point—that the catheter should not be introduced into the intestine at any point lying higher in the abdomen than the umbilicus, otherwise it may lead to a kinking of the intestinal loop.

OPERATING THEATRES.

PUTNEY HOSPITAL.

Acute Intussusception in a Young Infant—Operation—Recovery.—Mr. Sampson Handley operated on a child, æt. 7 months, who had been admitted to the Putney Hospital. She had been taken suddenly ill with vomiting, paroxysmal crying, and a passing of blood and mucus from the rectum. The symptoms had begun at 5 a.m. and she was seen by Dr. J. J. Edwards. The child did not look very ill. Its crying was lusty, and the abdomen was not distended. Dr. Edwards suspected intussusception, and deep abdominal palpation evidently caused some pain, but no definite swelling could be felt owing to the resistance of the recti muscles. The following morning Dr. Edwards brought the child up to the Putney Hospital where an anæsthetic was administered. A definite sausage-shaped mass could then be felt in the hypogastrium. Rectal examination disclosed no tumour, but blood and mucus were present on the examining finger.

Fourteen hours after the onset of symptoms Mr. Handley opened the abdomen in the middle line. A large intussusception was found occupying the situation of the transverse and the descending colon. The intussusception was very much congested and blue, and reduction was effected with great difficulty, the peritoneal coat of the large gut cracking in many places during the procedure. The intussusception, which included the appendix, was greatly swollen and congested and infiltrated everywhere with effused blood. The mesentery of the ascending colon seemed to be deficient and the cæcum was very long.

Believing that these conditions were the predisposing causes of the intussusception, Mr. Handley anchored the ascending colon and cæcum to the peritoneum of the right iliac fossa by two fine silk sutures. The peritoneum was then closed with fine catgut, and the abdominal wall with figure-of-eight fishing gut stitches.

The operation occupied about 20 minutes. Mr. Handley said that the principal interest of the case lay in the extreme youth of the patient. Children so young did not stand abdominal operations well. It was very important, he pointed out, that the operation should be done quickly, and that the surgeon should be as gentle as possible in his manipulations. During the operation it was very important to avoid chill, and, if possible, the reduction of the intussusception should be carried out without delivering it from the abdomen. There seemed to be no doubt, he remarked, that the presence of a long entero-colic mesentery was a predisposing cause not only of volvulus but of intussusception as well.

The following day, after a simple enema, flatus was passed, and also some mucus mixed with blood. About thirty hours after the operation the child vomited large quantities of greenish fluid of offensive odour, but not definitely fæcal, and the abdomen was distended. Collapse appeared eminent. Dr. Newman administered 5 minims of pituitary extract. An hour later the little patient was practically pulseless and appeared in a desperate condition. Hot fomentations were ordered to the abdomen. The following morning the condition had greatly improved for the better, the pulse was good and the bowels acted. Subsequently the child made good progress and left the hospital sixteen days after admission.

SPECIAL REPORTS.

THE EIGHTY-SECOND ANNUAL MEETING OF THE BRITISH MEDICAL ASSOCIATION, HELD AT ABERDEEN, 1914.

[By Our Special Representative.]

CONCLUDING ARTICLE.

The Annual Exhibition.

Despite the fact that most of the exhibitors held duplicate displays in London and Aberdeen, owing to the clashing of the two Congresses, there was, nevertheless, a very good show of medical books, appliances, instruments, foods and drugs. The exhibition was conveniently housed in two spacious rooms within the Marischal College, close to the meeting places of the sections. Messrs. Burroughs Wellcome and Co. were well to the front, and in an elegant display were to be seen their well-known specialities, including "Tabloid" and "Soloid" products, and their excellently-designed "Vaporole" medicaments. Among their recent preparations was to be seen "Laxamel," a refined paraffin jelly of service in chronic constipation. Messrs. Cadbury Bros., Ltd., were showing their high-class preparations of cocoa and chocolate. Among the attractive exhibits at the stall of Messrs. John Wright and Sons, Ltd., of Bristol, were to be seen "The British Journal of Surgery," "The Medical Annual," and the two valuable companion books "An Index of Differential Diagnosis of Main Symptoms" and "An Index of Treatment," by Drs. Herbert French and Robert Hutchison respectively. The Regulin Syndicate, Ltd., showed their ingenious combination of agar-agar with cascara sagrada. Messrs. Ingram and Royle, Ltd., presented for inspection specimens of the famous waters of Carlsbad, Giesshubler, Vichy, etc. At the stall of Messrs. Zimmer and Co., Ltd., were exhibited, among others, "Allosan," an approved anti-gonorrhœic; "Dymal," a healing wound powder, and "Validol," the well-known sedative and stimulant. A fine show of medical books was exhibited by Messrs. E. A. Brooke-Williams, including, among others, Dr. Hamilton Pegler's new "Map Scheme of the Sensory Distribution of the Fifth Nerve (Trigeminus) with its Ganglia and Connections"; Dr. Harrower's "Practical Hormone Therapy," and "Prof. De Quervain's "Clinical Surgical Diagnosis." The Charles H. Phillips Chemical Co. were well in evidence with their milk of magnesia, phospho-muriate of quinine, and digestible cocoa. Of the preparations exhibited by the Saccharin Corporation, Ltd., novocain, trivalin, a harmless substitute for morphia, and phytin (ciba), a natural phosphorus salt, commanded attention. The well-known "Ronuk" polishes, stains and stoppings were to be seen at an attractive stall. Messrs. Brand and Co., Ltd., were showing their renowned meat essences and lozenges, as well as "Ferrocarnis," a pleasantly flavoured preparation of iron and meat-juice. The Horlick's Malted Milk Co. exhibited their valuable food, both in powder and tablet form, and the advantages of the Horlick's special feeder were demonstrated to interested inquirers. At the stall of the Bayer Co., Ltd., were a large number of pharmaceutical specialities, prominent among which were "Adalin," a safe hypnotic; "Istin," a synthetic laxative; "Polylactol," scientific galactagogue; and "Cymarin," a cardiac tonic and diuretic, in addition to the three somatose preparations. Some useful voice pastilles were exhibited by Messrs. Meggeson and Co., Ltd., as well as "Vocalzone" solution and gargle for use in tonsillitis, nasal catarrh, pharyngitis, etc. At the stall of Messrs. D.

Appleton and Co. were to be seen many interesting medical works, among which may be mentioned a new edition of Dr. Essex Wynter's "Minor Medicine," Dr. W. Gilman Thompson's "Occupational Diseases," and Dr. R. Behan's book on "Pain." Messrs. H. K. Lewis presented a large number of important medical books, among which were to be seen Dr. C. K. Millard's "The Vaccination Question in the Light of Modern Experience," a second edition of Dr. Lewis Jones's "Ionic Medication," and Dr. G. De Swietochowski's "Mechano-therapeutics in General Practice." Lemco and Oxo were well to the front with their high-class nutritive preparations. Among the exhibits of the Nestlé and Anglo-Swiss Condensed Milk Co. was to be seen the particularly pure "Milkmaid Brand of Pure Rich Thick Cream," free from preservatives. The Apollinaris Co., Ltd., had samples of Apenta, Apollinaris and Johannis waters and table beverages. A large number of medical books were on view at the stall of Messrs. W. B. Saunders Co., including Dr. Crile's work on "Anoci-association," Sir Berkeley Moynihan's "Abdominal Operations," a new edition (11th) of Anders' "Practice of Medicine," and Dr. Kerley's "Practice of Pediatrics." The well-known hygroscopic and antiseptic application "Antiphlogistine" was much in evidence at the stand of the Denver Chemical Manufacturing Co. The various preparations and adaptations of "Cyllin" were demonstrated by Jeyes' Sanitary Compounds Co., Ltd. Messrs. Fairchild Bros. and Foster presented numerous preparations, including their well-known "Panopepton" and "Enzymol," a purified solution of the proteolytic enzyme designed for external application. Last, but not least, there was the fine display of Messrs. Parke, Davis and Co., who were showing, among other interesting preparations, "Codrenine," a local anæsthetic and ischæmic solution containing adrenalin and cocaine, a selection of "Glaseptic" sprays and nebulisers, as well as specimens of the firm's "Phylacogens," and other vaccines.

The Pathological Museum

was also housed in the Marischal College. While not large, it contained many exhibits of great pathological interest. We regret that space forbids their enumeration, but mention may be made of the microscopic specimens of the phases of the life history of the Leucocytozoon syphilidis, by Mr. J. E. R. McDonagh. Dr. M. C. W. Young showed a preparation illustrating the derivation of a coccus resulting from heating the B. anthracis. Some interesting photographs were shown by Dr. P. H. Bahr of cases of yaws and sprue. A number of wax casts, colour photographs and drawings of rare dermatological conditions were exhibited by Drs. Norman Walker, Alfred Eddowes, and Haldin Davis. X-ray pictures, surgical specimens were much in evidence, and one section, devoted to historical exhibits, attracted much attention.

CORRESPONDENCE.

FROM OUR SPECIAL CORRESPONDENTS ABROAD.

AUSTRIA.

Vienna, Aug. 2nd, 1914.

Dystonia Musculorum Deformans.

At the recent meeting of the Gesellschaft für Innere Medizin und Kinderheilkunde, Dr. B. Biach exhibited a case of dystonia musculorum deformans (progressive torsion-spasm, Ziehen-Oppenheim disease). The history of the case dated from an insidious commencement of five years ago, from which it had gradually evolved, and for the past three years had manifested itself in the form of pains in the feet, which were accompanied with a sensation of dragging weight. There were also stabbing pains in the back. When the patient assumed the erect posture, the right lower extremity always displayed a position of torsion, the foot presenting a degree of deformity which simulated that of club-foot, while the spasmodic condition of the spinal musculature produced the distortions of lordosis and scoliosis. The spasm subsided when the patient made a controlling effort, or when he was supported, or assumed a position of repose. The small muscles of the feet are in an atrophic condition. The neck is held in a position of slight backward inclination, as a result of which the muscles of the cervical region stand out in a state of strong tension. Slight twitchings are observable in the muscular system. The patient now walks only with extreme difficulty. The ætiology of this disease must depend on an organic change of the central nervous system. (Is this one of the cerebellum, or of the nerve-paths leading therefrom?)

Naso-pharyngeal Tumour with Cerebro-spinal Metastases.

Dr. A. Finzi demonstrated the case of a male patient, æt. 22, who presented a naso-pharyngeal tumour which had proceeded to metastatic developments in the base of the brain and in the spinal cord. Two years previously a tumour had formed in the neck, and a quantity of pus unmixed with blood was removed therefrom by operation. Paroxysmal radiating pains subsequently appeared, especially in the form of left-sided cephalalgia. Large lymphatic swellings gradually developed in the neck, and the olfactory and auditory sensations had become more obtuse on the left side. On application of the radium treatment some improvement was manifested, but this did not continue long. The patient now suffered from acute left-sided cephalalgia, and also from abdominal pains which radiated from the vertebral column. There was also ptosis on the left side, which was accompanied with a slight degree of exophthalmos, paresis of the left oculomotorius and abducens, analgesia which extended over the left half of the face, marked lowering of the olfactory and gustatory sensibility on the left side, a slight degree of paralysis of the left lateral half of the velum pendulum palati, and the presence of a hyperæsthetic zone at the level of the fifth and sixth dorsal vertebræ, which was also the seat of radiating pains. A sarcomatous tumour occupied the naso-pharyngeal space; this grew from the wall of the epi-pharynx, and its surface had become party ulcerated. Metastatic tumours of the cervical lymphatic glands had developed, and had also apparently formed in the middle fossa of the base of the skull and in the structures of the vertebral column.

Treatment of Trachoma with Ultra-violet Rays.

Dr. F. Rössler has just published his experiences of the Finsen-ray treatment of the milder forms of trachoma, accompanied with the formation of small "sago-grain" nodules in the tarsus and fornix, or with papular hypertrophy and the development of numerous granulations. This form of therapeusis has been found by him to yield the best results of any, and in the minimum interval of time. In the other stages, "blue-stone" had been found to prove the best local application. In cases which had reached the stage of pannus formation, any application of the Finsen-rays was contra-indicated.

Use of Arthigon in Iritis.

Dr. H. Kreibich has published a paper which gives his experiences of the use of Bruck's arthigon, administered by way of intra-venous injection, in cases of gonorrhœal iritis and allied conditions. He had found that it gave surprisingly favourable results, and was absolutely without danger.

The Ætiology of Ulcus Ventriculi.

A great deal of interest is now directed here to the recently published theory of the genesis of ulcus ventriculi which has been formulated by Dr. B. Stuber (Freiburg i. B.) as the result of careful researches on this much-debated question. He has arrived at the conclusion that such conditions as cause an increased formation and frequent regurgitation of the intestinal ferments into the cavity of the stomach can always be guaranteed to produce typical specimens of ulcus ventriculi. This fact he has proved by carefully repeated experiments. He had found that after ligature of the pancreatic duct, when the most favourable conditions were provided for the unrestricted action of the intestinal ferments on the lining membrane of the stomach, no ulcerative process was ever found to develop. On the other hand, feeding with trypsin was always found to be followed by the appearance of typical ulcers. Accordingly, the conclusion becomes unavoidable that, in the experiments carried out by Dr. Stuber, the active agent which was accountable for the digestion of the gastric mucous membrane was no other than the trypsin which functioned, so to speak, as a foreign body in the cavity of the stomach. He had thus found himself dealing with the formation of an ulcus trypticum—and under conditions of which the development in the human organism is quite readily conceivable.

UNITED STATES OF AMERICA.

New York, Aug. 5th, 1914.

The Illicit Consumption of Opium and other Narcotics in the United States of America: Its Relation to the Growth of and Traffic in Opium in the Orient.

It is the large Chinese population in America which has impelled the United States Government to inquire into and endeavour to regulate the consumption of opium by unauthorised persons. In the course of this inquiry, it became manifest that far more opium was being imported than could be accounted for by what the Chinese consumed, and what doctors prescribed. At the same time, it became generally known that the number of secret takers of drugs was becoming very large, and that a large proportion of these were takers of derivatives of opium. A little later, the researches of the chemical bureau of the Department of Agriculture revealed the fact that many nostrums extensively advertised and consumed contained morphine or other derivatives of opium. Some of these were actually being vaunted as infallible cures for the morphine habit.

This is why the United States has shown such earnestness in the international control of the traffic in opium; but it is felt that before this Government is justified in urging strong measures upon the Orientals and invoking ardently the support of other Western Powers in this campaign, it behoves it to set in order its own house and show that it is sincere in its efforts to mitigate if not to abolish the illicit traffic in narcotic drugs, which has reached an extent to menace the health of the nation to an even greater degree than has been the case in China. It will surprise those unacquainted with the fact to learn that one hundred and fifty thousand pounds of crude opium for smoking were imported in one year. The manufacture of this was permitted on payment of the nominal licence of ten dollars per annum. The total amount of opium retained in the United States is four hundred and fifty thousand pounds. In addition to this, a considerable amount is smuggled, especially since the prohibition of the importation of smoking opium.

Customs returns since 1860 show that about 25 per cent. of the total imports of opium is used for smoking. Deducting this proportion from the amount entered at the Customs Office, the following increases of imported opium are revealed:—Decade 1850-1859, from 338,194 lbs. of crude opium to 741,663 lbs., being an increase of 119 per cent., the increase of population only being 34 per cent. A large amount of opium was also smuggled for smoking purposes, and this is estimated at about 20 per cent. additional to that entered at the Custom House. In the following five years occurred the civil war; and a great deal of opium was believed to have entered Southern ports at that time without paying duty, for the Customs returns show an increase of only 48.7 per cent., with a population increase of 22 per cent. It must be remembered, too, that the medical demands were greatly increased by the war.

For the decade 1870-1879, the importation was 1,926,023 lbs. as against 1,103,054 lbs. for the preceding decennium, being an increase of 74 per cent., while the population increased only 30 per cent. This period coincides with the beginnings of the abuse of the products of opium; and this increase in excess of the population has continued.

Thus, in the decade 1880-1889, the amount entered by the Customs was 3,283,923 lbs., an increase of 61.9 per cent., the population increasing 26 per cent. In the decade ending 1889 the imports increased 57.4 per cent., the population 21 per cent. But this figure is less significant because of the differences of tariff which occurred during this period, in which opium paid no duty for a part of the time, and was imported in enormous quantities to anticipate the Dingley tariff. Hence in the following decade ending 1909 there was an apparent decrease from 5,130,704 lbs. to 4,800,088 lbs., while the population increased 15.9 per cent.

Taking the whole period from 1860, we find that there is an increase of 351 per cent. in the amount of opium imported in the last decade, against an increase of population of 133 per cent.

This increased amount is by no means due to the increase of Chinese in the United States. Thus, in 1909 there were estimated to be 120,000 in this country. From a survey of the Chinese quarters in the largest cities it has been estimated that 35 per cent. of these people smoke opium. These may be divided into heavy smokers, who use six pounds per annum; these number about ten per cent.; light smokers, who use 1½ lbs. per annum, who number about 15 per cent.; and social smokers, who use about 1 oz. per annum, to the number of 10 per cent.

From these figures we can calculate a total Chinese consumption of 99,750 lbs. As the average importation is 148,168 lbs., if we calculate the importation of smoking opium as being about 25 per cent. of the total opium import, there remained 48,418 lbs. to be accounted for by non-Chinese smokers. It is true that the foregoing statistic does not agree with that submitted by the United States to the International Opium Commission at Shanghai; but since that estimate was made further data have been derived from the Japanese inquiry in Formosa, from figures submitted by the Chinese members of the Commission, and by the investigations of the United States delegates in the Phillipines. In that dependency adult male Chinese are only permitted opium upon taking out a user's licence. 12,700 licences were issued, and it is believed that unlicensed smokers bring the total number to 20,000 out of a Chinese population of 55,000, that is 36 per cent. In Formosa, the strict registry system of the Japanese indicates that 32 per cent. of Chinese male adults smoke opium.

But on the other hand there must be added to this 48,418 at least 20,000 lbs. which is smuggled into the United States from Canada, besides what is surreptitiously manufactured in the United States.

The Hon. Mackenzie King, now the Minister of Labour in the Canadian Cabinet, discovered that there were at least seven factories manufacturing smoking opium in the Pacific Coast Cities of Canada. In 1907 their receipts were over $600,000. The owners of these are Chinese, who import the crude drug from India. Although they assert that their product is entirely consumed in Canada itself, Mr. King concludes that much of it is smuggled into the United States, and this opinion is confirmed by the American Customs collectors, who find it impossible to prevent the smuggling, and estimate that 20,000 lbs. a year crosses the border.

It is difficult to estimate, however, the number of American opium smokers, for the practice is generally secret and mainly indulged in by the outlaw classes, who are able to smoke only when they have money and are not in gaol. Thus, the consumption per caput is smaller than that of the heavy-smoking Chinamen. By questioning the gaol wardens, the police, physicians, and intelligent opium smoking Chinamen, it is computed that in New York, Chicago, and San Francisco, there are between 5,000 and 15,000 Caucasian and negro smokers of opium. Taking 7,000 as a fair average, and using this figure *pro rata* to other centres of population, it might be estimated that there are 150,000 white and black opium smokers. This would correspond to a consumption of about half a pound per annum for each, on the assumption that 68,000 lbs. are consumed, in accordance with the foregoing calculation.

The danger has been long realised: it has not only permeated popular literature, but both States and municipalities have legislated against the evil. Efforts at prevention were, however, nullified by the fact that importation and manufacture is allowed by the tariff and excise laws of the Federal Government. Recently, however, the Government has forbidden the importation of smoking opium. Recently also the effort to diminish the consumption of opium in China has been extended to the Chinese subjects in America. This has been done by articles in Chinese newspapers, pamphlets, the formation of societies, the establishment of special hospitals, and the importation of remedies to suppress the craving. But subsequent inquiry has shown that these unfortunately all contain opium or morphine. It is yet too early to perceive the results of these attempts at prevention among the Chinese.

Crude or Medicinal Opium.

It is the unanimous opinion of the medical profession, obtained by canvassing some two thousand distinguished physicians and surgeons, and also many large hospitals, that both opium and its preparations are much less used medically than they were ten years ago. Between fifty thousand and one hundred thousand pounds per annum is the estimated need at present. Yet, during the last ten years there has been an average importation of 400,000 lbs.—that is, at least 300,000 lbs. in excess of the actual medical needs of the people. That these figures are not incorrect is shown by those of countries where efficient national laws restrict the use of opium. Thus, Italy uses only 6,000 odd pounds of medicinal opium for its 33 millions; Austria and Hungary between 3,000 and 4,000 lbs. for its 46 millions; Germany consumes 17,000 lbs. for a population of 60 millions; and Holland about 3,000 lbs. for its six millions. None of these amounts exceed the medical needs of the people, so that on account of efficient regulations and good sense they have no opium problem.

The fact that there is an excessive consumption in the United States is confirmed by inquiry from importers of opium and manufacturers of morphia. They declare that from 70 to 80 per cent. of the imported medicinal opium is converted into morphine; and that at least 70 per cent. of this is consumed by *habitués*. A great deal of what remains is used in patent medicines.

A direct census of takers of the drug has been impossible; but from inquiry at the large gaols in twenty-five States it is estimated that 6 per cent. of the prisoners and 45 per cent. of habitual criminals are drug takers. From the same source it is believed that about 21 per cent. of unfortunate women and their hangers-on are addicted. In the same territory there are among physicians, 2.06 per cent.; among trained nurses, 1.32 per cent.; and in the other professional classes, 0.684 per cent. of habitual users. The statistics among manufacturers show an increased sale of morphine of 100 per cent. in some rural Eastern districts. Of course, all these figures are mere estimates, but the passage of the National Food and Drug Act and the State Municipal laws which it has inspired has reduced the consumption of patent medicines containing opiate by 30 per cent.

The prevalence of opium consuming in the United States is attributed to :—(1) The hardships and privations which followed the Civil War as well as to the contraction of the habit by its medical use among the wounded and suffering during the war. (2) The indiscreet prescription of opiates by physicians who were not educated to realise their danger has been a fertile cause of addiction. (3) Still more prolific has been the activity of the prescribing druggist and the vendor of patent medicines. Many of these have tried to defeat the law; and it is only since the Federal Government has regulated importation, manufacture, and inter-state commerce in opiates, that there has been any cessation of the pernicious activity of this source of danger to the American people. There is still, however, need of further legislation to control the inter-state traffic in habit-forming drugs.

(To be continued.)

Dr. Morrice Greer has been appointed School Medical Officer for Preston.

LETTERS TO THE EDITOR.

[We do not hold ourselves responsible for the opinions expressed by our Correspondents.]

THE WAR AND THE NEWSPAPERS.

To the Editor of The Medical Press and Circular.

Sir,—It was impossible without sympathy to read your frank statement with regard to the totally undeserved injury which medical papers must sustain through the indirect effects of the truly terrible struggle which our whole Empire has entered upon, and no less sickening to view the attitude of the great bulk of leading papers. These papers set the fashion to the mass of inferior fry. They follow what is called "commercialism," and this means the struggle to amass money by any means that does not include felony, although there are some professed guardians of the public welfare who do not stick at felony when they have made themselves tolerably sure that when put into the dock finally for trial a flaw will be found in the indictment. Then they will be heroes to their pals and sure of a biography after their deaths. To-day being the Sabbath, it is truly edifying to notice the shoals of advertisements, of whose character the proprietors and managers are fully aware, put forth in special Sunday editions to deceive and injure our soldiers—those gallant men about whom the papers write in blasphemous terms. I send you some sheets from foremost papers of the day. Would it not be better to give eloquent appeals to the Almighty to guard our noble soldiers, instead of assisting to exploit and injure them by the publication of advertisements of these fraudulent quack medicines?

I am, Sir, yours truly,
Scrutator.

Sunday, August 16th, 1914.

INFANT MORTALITY.

To the Editor of The Medical Press and Circular.

Sir,—At this time of year the mortality among infants is always high, and since it is to the young generation that the country must eventually look for its strength, it is of the utmost importance at this juncture to prevent all unnecessary waste of life. At an emergency meeting of the Executive Committee of the Association of Infant Consultations and Schools for Mothers, which has just been held, it was decided to ask the co-operation of the press to point out to all those who have the charge of young infants that many deaths and much illness may be prevented by the observance of a few quite simple principles of mothercraft, of which the most important are :—

1. To persevere with natural feeding up to the end of the ninth month, or even longer, even though the mother is compelled to go out to work. Employers of female labour are earnestly requested to give nursing mothers opportunities for feeding their babies.
2. That in those cases in which such opportunities are impossible weaning is by no means necessary. A supplementary feeding of cow's milk will not disagree with the infant and may save the infant's life.
3. That the chief causes of illness among nursed and other babies is irregular and too frequent feeding by day as well as by night; intervals by day should not be less than three hours, and at night a long interval of some six-eight hours should always be provided.
4. Expectant mothers should also seek advice as to their own health, either by consulting their doctors or by attending at schools for mothers.
5. That stimulants are not only unnecessary, but are harmful both to nursing and expectant mothers.

Yours, etc.,
Eric Pritchard, M.A., M.D.Oxon.,
Chairman of the Association of Infant Consultations and Schools for Mothers.
Eleanor Ritchie,
Hon. Secretary of the Association of Infant Consultations and Schools for Mothers.

4 Tavistock Square, London, W.C.,
August 15th, 1914.

OBITUARY.

DR. W. H. CARTHEW DAVEY, LIVERPOOL.

We greatly regret to have to announce the death of Dr. William Henry Carthew Davey, of 30 Princes Road, Liverpool. Deceased some weeks ago, from some unascertained source, contracted enteric fever, which had a fatal termination on the 11th inst. Before his illness he was in the fullest health and busily engaged in work. The announcement of his death will come as a great and painful surprise to his numerous circle of friends and admirers. Dr. Davey was born in London in 1867, studied at Charing Cross Hospital, where he afterwards held an appointment as House Surgeon. Later he obtained the appointment of Senior House Surgeon at the Royal Southern Hospital, Liverpool, and upon relinquishing this he was appointed Surgical Tutor at the Hospital and settled in practice in a central part of that city, where he soon succeeded in establishing an extensive and lucrative practice. He held several public appointments, amongst which were the Surgeoncy to the Liverpool Orphanage, Myrtle Street, the Agency to the Admiralty, as also the medical refereeship to one of the largest insurance companies. In the year 1892 he married Sara, daughter of the late Robert Thomson, of Belfast, J.P., by whom he is survived. Two children, both of whom are boys, are also left to mourn his loss at a period of adolescence when parental care and oversight are of untold value. He was a member of a number of learned societies, amongst which may be named the Liverpool Medical Institution, and a firm supporter and contributor to this journal. His funeral (by cremation) took place on Friday last, the 14th inst.

DR J. FLETCHER LITTLE.

We regret to announce the death of Dr. John Fletcher Little, J.P., which took place at 33 Dorset Square, N.W., on the 9th inst., aged 71. The deceased, who qualified as L.R.C.P. and S.Edin. and L.M. in 1866, received his medical education in Dublin, Liverpool, Charing Cross, and the University of Cambridge, of which he became M.B. in 1888. He was elected M.R.C.P.Lond. in 1889. Dr. Little was well known in Marylebone, and he had served on the London County Council. He was also Medical Officer of Health for Harrow. He was a Vice-President of the Medical Graduates' College and Polyclinic, and was formerly Physician to Mount Vernon Hospital for Consumption, the London Temperance Hospital, the West End Hospital for Nervous Diseases, and the St. Marylebone General Dispensary. He had previously held the appointment of Physician to the Ben Rhydding Establishment and the Liverpool Convalescent Institution. Dr. Little had contributed many articles of interest to the medical journals, including one on "Massage and Mechano-Therapeutics" to the *Index of Treatment*. He was also the author of a work on "Rheumatoid Arthritis."

REVIEWS OF BOOKS.

TWO YEAR-BOOKS

One of the main objects of the reviewing of books is to call the attention of readers to those that are worth purchase and perusal, and, on the other hand, to warn against the worthless. From this point of view there is little need to write a review of Messrs. Wright's "Medical Annual" (*a*), for every medical man who reads at all must know that it is indispensable. Each successive issue makes us wonder more and more how the anonymous editor succeeds in making the task so comprehensive and at the same time so selective. There is no better guide to current knowledge in all branches of medicine, surgery, and obstetrics. We note in the article on anæsthetics by Dr. Blumfeld a good account of the method of intratracheal administration introduced by Melter. Dr. Blumfeld also abstracts the more important communications of the year dealing with such subjects as the cause of death under chloroform, intravenous anæsthesia, spinal analgesia, and "anoci-association." In the article on "Cancer" Mr. Monsarrat quotes, with illustrations, some valuable and insufficiently known work of Mr. F. T. Paul on the histology of epitheliomata and its relation to degrees of malignancy. The only article on "Vaccines" is that included in the "Review of Therapeutic Progress" by Dr. F. J. Charteris, and is hardly sufficient, in view of the rapid development of that method of treatment. In particular, we might expect more information concerning "sensitised vaccines." Dr. Priestley supplies a useful article on "Public Health," in which he quotes the more important legal decisions of the year. The weakest feature in the present volume, as in its predecessor, is the glossary, with which it opens. Where, however, nearly all is very good, it would be ungenerous to dwell on the few weak points.

The "Tuberculosis Year Book" (*a*) edited by Dr. Kelynack, contains a great deal of information of use to all who are concerned in tuberculosis work. It caters for the clinician as well as for the administrator, and indeed, also for members of public boards who have to formulate and carry out tuberculosis schemes. Among the valuable contributions from writers who can speak with authority we may mention specially the article by Sir Thomas Oliver on "Occupation and Tuberculosis," and that by Dr. Nathan Raw on "Bovine Tuberculosis Conveyed from Animals to Man." Dr. Feldman contributes an interesting note on "Tuberculosis and the Jew": he adduces evidence in support of the view that members of the Jewish race, both in Western Europe and in America, suffer less from tuberculosis than do those of other races among whom they live. Those engaged in formulating tuberculosis schemes will be helped by a perusal of the various schemes adopted by some dozen local authorities. The descriptive but incomplete list of sanatoria and tuberculosis hospitals, which fills one-third of the book, does not appear to us to be specially useful. The volume is of cumbrous shape and is too heavy for comfort, but, as we have said, it contains considerable matter of interest.

PSYCHOLOGY AND BIO-CHEMISTRY. (*b*)

The "Vorwort" of this extremely interesting and suggestive booklet is dated from St. Petersburg: May of last year. That of the Russian issue bears the date December, 1911. The text is based on the subject-matter of the author's special course of lectures at his University. The booklet presents a well-thought-out presentation of our current knowledge of the indented bordering margin which limits and connects the respective domains of biological chemistry and pathological psychology. Thus it forms a contribution to the great mass of enlightening (and sometimes confusing) matters of fact and opinion which the tidal wave of nineteenth century materialism set in centrifugal motion all round the world of thought. The spirit of research that was set in motion by the epoch-making synthesis of urea, which "dynamited" the barrier that had previously marked off the respective domains of organic and inorganic matter through all the centuries, encouraged a large section of enthusiastic, if not always judicious, apostles of scientific research and scientific infallibility to hope for the early attainment of what has hitherto proved to be unattainable. So did the invention of the colossal "mare's nest" of the "Origin of Species by means of Natural Selection." But each explosive movement had unquestionably the very desirable effect of stimulating and encouraging research in every department of its special domain of knowledge, and thus furnishing an enormous collection of utilisable facts, and sugges-

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(*a*) "The Medical Annual: A Year-book of Treatment and Practitioners' Index." By various contributors. 1914. 32nd year. Bristol: John Wright and Sons, Ltd. Pp. cxxxvi., 951. Price 8s. 6d. net.

(*a*) "The Tuberculosis and Sanatoria Annual." Edited by T. N. Kelynack, M.D. Volume I., 1913-14. London: John Bale, Sons and Daniellson, Ltd. Pp. xxxviii, and 476.

(*b*) "Des Wesen der Geisteskrankheiten und der Biologisch-Chemische Untersuchungen." Von Dr. A. Justschenko, Privat-docent an der Kais. Universität Dorpat. Dresden und Leipsig: Verlag von Theodor Steinkopff. 1914.

tive subjects of thought and criticism. The dangers of vaulting ambition have been as clearly illustrated in connection with those movements of intellectual invasion and conquest as they have ever been in the political ones that have evermore plagued humanity at recurring periods of its history. The most enthusiastic evangelists of the "New Knowledge" are more than likely to become mentally myopic as a direct result of the intensity of their application. This is, however, a human weakness which may well be held to merit a substantial share of sympathy. And although the mass of collected facts hitherto garnered in each special compartment will not convey to the logical mind the persuasive power of the methods of demonstrative proof—even when most skilfully manipulated—every earnest inquirer has the fullest reasons for gratitude to those who have done so much to pluck out the heart of the mystery of Nature's laws and methods of movement which now remains but very partially screened off from the mental vision of those who have eyes to see.

The great object of Dr. Justschenko has been to demonstrate and illustrate the mutual connection and inter-dependence of mind and matter in the human organism, to the present knowledge of which so vast an amount of material has of recent years been contributed by researches in the very interesting department of biochemistry. His facts are far too numerous to be even glanced at in any detail. We will just give the Gautier classification of leucomaines in six groups as a stimulating appetiser to the inquiring reader: (1) The neurin group (neurin, cholin, betain); (2) the kreatin group (kreatin, kreatinin, glycoseamin, lysatin, methylguanidin); (3) xanthin group (xanthin, hypoxanthin, adenin, guanin); (4) amin-leucomaines with open chains (methylamin, trimethylamin, neuridin); (5) amino-acids (glycocoll, leucin, etc.); (6) leucomaines of unknown chemical constitution, such as plasmin and spermin. Perhaps a good test of the reader's enthusiasm would be afforded by the degree of his desire to take up this chain of investigation at its present limit, and try to add a few more links to its crescent longitude (?).

LECTURES ON DIETETICS. (*a*)

The series of lectures which comprise this volume were delivered at the New York Post-graduate Medical School, and the author is to be heartily congratulated in now publishing them in book form. The subject of dietetics has been so long the happy hunting-ground of faddists that it is a pleasure to read a book which is based on sound reasoning and possesses much practical utility.

After discussing the principles of diet and nutrition, the author deals with the digestibility of foods and the diet in health and acute diseases. The diet in acute diseases of prolonged duration and in chronic diseases and the diet in chronic affections of the digestive tract next receive consideration. There are chapters on the dietetic treatment of chronic diarrhœa and the dietetic treatment of diabetes mellitus. Various diet *régimes* are examined and the author concludes with a chapter on indications for and description of the method of duodenal feeding.

It will thus be evident that much ground has been covered in this small volume and the fact that the book is based on verbatim reports of the actual lectures makes its perusal all the more interesting, and enhances its practical value. There can be no doubt that this monograph will facilitate the question of diet to the practitioner, and will aid him in its management and we can with confidence recommend it to our readers.

THE PRACTICE OF MEDICINE. (*b*)

This popular text-book having reached its tenth edition, there remains little for a reviewer to say. The edition has been very thoroughly revised, and many sections have been recast, a notable example being the appearance of a separate section on diseases of the ductless glands. Infantile paralysis, owing to the researches of modern pathology, has been transferred from the chapter on nervous, to that on infectious, diseases. The modern work on diseases of the heart has also been incorporated, and we note that even the rarer skin diseases have been added. Useful skiagram illustrations have been obtained from Dr. A. C. Jordan. We do not doubt that students of the present day will appreciate this text-book as much as did their predecessors the previous editions.

MANUAL ON MASSAGE TREATMENT. (*a*)

The fourth edition of this useful book has just appeared in revised and enlarged from, with a chapter on massage of the eye by Dr. A. Darier, of Paris. The first edition appeared in 1884, and, so far as we know, was the first book in English on this subject. The present volume is highly to be recommended to the physician and surgeon alike as well as to the specialist and general practitioner as a useful text-book and reference manual at one and the same time, since it presents a record of the lengthy personal experience of the author, combined with that of the best writers and practitioners of massage in various countries. Those who have practical acquaintance with massage in its various forms are well aware that its range of usefulness is continually increasing, since it has long since extended into all branches of medicine, so that those who would keep pace with its progress must be well informed in all departments of the healing art.

In our opinion, in the British Isles, massage has by no means reached the highest pitch of development, for there are still large numbers of medical men who have no practical acquaintance with the methods of application of this most useful remedial agent, and who are unable to give precise directions as to how special movements shall be carried out, but are content to rely upon the skill and discretion of the manipulator whom they employ. If the latter has had a sufficient training, little or no harm will ever be done, but for success in treatment we still look forward to the day when the British physician will no longer consider it beneath his dignity either to possess an accurate theoretical knowledge of the subject, or, as on the Continent and in other places abroad, be his own masseur. A brief *résumé* is impossible since the contents are so diverse and comprehensive. We most cordially recommend it to medical men and students of massage as one of the best standard works to which they can refer.

HANDBOOK ON SANITATION. (*b*)

This manual of theoretical and practical sanitation is primarily intended for sanitary inspectors and other inspectors engaged in public health work. It is divided into three parts: I. Sanitary Science; II. Sanitary Practice; III. Sanitary Inspection. The questions discussed are similar to those dealt with in any manual on practical sanitation and need not be detailed. The book is pleasantly written and the author has acquired the art of marshalling his facts in an interesting manner. The work is of course based on sanitary practice as carried out in the United States, which differs in several respects from that in vogue in this country. One very marked difference in this respect may be mentioned. In this country it is usually considered sufficient for a public water supply to be rendered potable by suitable purification before distribution, but the author maintains that whether this has been done or not there ought to be in every house some means of further purifying the water. The illustrations, though not very numerous, have been

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(*a*) "Lectures on Dietetics." By Max Einhorn, Professor of Medicine at the New York Post-graduate Medical School and Hospital, and Visiting Physician to the German Hospital, New York. London: H. K. Lewis. 1914. Price 4s. net.

(*b*) "The Practice of Medicine." By Frederick Taylor. Pp. 1,192. Tenth Edition. London: J. and A. Churchill. 1914.

(*a*) "Massage Manual of Treatment." By —. Grahame. Philadelphia and London: J. B. Lippiocott. 1914.

(*b*) "Handbook on Sanitation." By George M. Price, M.D., Director of Investigation, New York State Factory Commission, etc. Third Edition. New York: John Wiley and Sons London: Chapman and Hall, Limited. 1913. Price 6s. 6d. net.)

judiciously selected and are extremely good. We have no doubt the book will have a wide circulation in the United States, and we can recommend the volume to those engaged in public health work in this country as a useful adjunct to more standard works.

TUBERCULIN TREATMENT. (*a*)

No better test could be made of the value of tuberculin than in the case of sanatorium patients, seeing that they remain long enough under treatment and observation for definite results to be recorded. Dr. Bardswell's report is, therefore, one which will be studied with interest by the profession as, at the present time, in certain quarters, exaggerated statements are being made as to the value of tuberculin. While too short a time has elapsed to give anything like a definite pronouncement on the subject, Dr. Bardswell's words must carry a certain amount of weight. He says that "tuberculin has not proved itself to be a remedy in the ordinary sense of the term, and no immediate or striking results are to be expected from it, even in the most favourable cases." He points out, moreover, that in a certain number of cases, tuberculin is positively harmful. He concludes by saying that "experience up to the present time shows that the administration of tuberculin is quite unsuitable as a routine method of treatment for all cases of pulmonary tuberculosis, and that its indiscriminate and careless use on a large scale can only end in harm." May these words sink deep into the minds of those who to-day are forward in advocating tuberculin treatment! This is a most excellent report, and we sincerely trust it will have a wide circulation.

POCKET MEDICAL DICTIONARY. (*b*)

THIS concise book in its new edition has been carefully revised and includes much new material. Most of the new terms which have been included from the different departments of medicine have been added, thus adding a few more pages than the previous edition and making it more complete. The Editor has made no attempt in this volume to replace the larger dictionaries, which are necessary to a thorough understanding of the language of medicine, but has made an effort to extend the possibilities of a pocket medical dictionary beyond that hitherto attempted.

The vocabulary is strictly up to date, the definitions of terms are brief yet clear, adequate and to the point. The order of arrangement is strictly alphabetical, and it also contains a considerable amount of matter in tabular form, which serves to group correlated facts, and is a valuable aid to the memory and quick consultation.

THE DIETETIC TREATMENT OF DIABETES. (*c*)

THE pathology of diabetes, if not fairly definable as a *terra incognita* in our enlightened twentieth century, as it admittedly continued to be during all the preceding eras, still remains unmapped to any degree approaching the standard of precision which may some day prove utilisable in the provision of the successful therapeutic code which is destined to lead to the physical salvation of the afflicted. Indeed, the accuracy of the author of the booklet now before us will be challenged by few practising members of the profession, when he states that: "Notwithstanding the researches of physiologists, pathologists and physicians in modern times, the ætiology and pathology of this fell disease remain as obscure to-day as they were in the days of Charaka and Susruta." Thus the interest of the disease may be said to present itself through the respective reflection of each of two of its facetted aspects—the historical and the clinical. And, as our author has evidently devoted earnest care and studious observation to the attempted mastery of this chosen task, his views on the subject of an interesting clinical entity which still continues to be one of the most unmanageable of that interminable series, should receive a full hearing from all physicians. It is interesting to read that: "Hindu physicians of yore were, perhaps, the first in the world to diagnose diabetes"—and it is decidedly instructive to learn that "kidney disease is not so common amongst Indians as amongst Europeans. This is due to Indians being accustomed to the vegetarian diet, which is non-stimulating, and also to their eschewing alcoholic beverages." Every medical practitioner should test the results here claimed for "the cocoanut cure."

RENAL DIAGNOSIS. (*a*)

THE advances made in urology are very largely due to increased facilities for making accurate diagnoses. These modern methods are here fully set forth. The author first discusses the physiology of the renal functions, and then goes on to speak of the competency of the kidneys, and how it may be measured. He next refers to cryoscopy and the various functional tests used in diagnosing renal affections. Finally, he deals with the significance of functional diagnosis in the medical and surgical treatment of kidney disease, illustrating his remarks by reference to some very interesting clinical examples. The book is one of considerable importance, not only to the specialist, but also to the general practitioner. It is a work of quite exceptional merit, and we are pleased to find that an English translation now exists. The translator's part has been well done, and the English rendering is quite readable and, so far as we can judge, is accurate and faithful to the original. As a handy epitome of modern methods of renal diagnosis, we can strongly recommend it.

ORGANIC CHEMISTRY. (*b*)

THIS is a very good book, full of solid information and liberally bestrewn with graphic formulæ. For the student who early feels the attraction of organic chemistry the work is ideal, but for the ordinary student, especially those intended for medicine, we would prefer a more easily read book. In this subject, space devoted to chaining the attention by the mention of some practical application is never wasted, it minimises the strain of the lesson and allows the memorising of a fact to be easily accomplished without resort to parrot character. That the book has been translated into many languages and many editions called for is sufficient evidence of its popularity and of the fact that our criticism is perhaps an isolated one, but we must confess that each time we read a portion of the book we felt bored.

APPLIED SPECTRUM ANALYSIS. (*c*)

THIS scholarly work of the late Dr. MacMunn, owes its publication to the devotion of Mrs. MacMunn and three of her late husband's friends. To those who have already mastered the elementary *technique* of spectroscopy, this book will prove most useful, written as it was by an untiring devotee of the science. The pigments of the invertebrates and of plants are dealt with as well as those colouring matters that we specially connect with spectroscopy, with the consequence that besides the medical worker, the zoologist and

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(*a*) "Preliminary Report on the Treatment of Pulmonary Tuberculosis." By Noel D. Bardswell, M.D., Medical Superintendent, King Edward VII. Sanatorium, Midhurst. London: H. K. Lewis. 1914. 6s. net.

(*b*) "The Pocket Medical Dictionary." By Dr. W. A. Newman Dorland. Philadelphia: W. B. Saunders Company.

(*c*) "The Dietetic Treatment of Diabetes." By R. D. Basu, Major I.M.S. (Retired). Fourth Edition, Revised and Enlarged. Allahabad: The Panini Office, Bhuranehvari Ashram, Bahadurganj. 1913.

(*a*) "Renal Diagnosis in Medicine and Surgery." By Dr. Victor Blum, Tutor in Urology at the University of Vienna. English Translation by Wilfred B. Christopherson. London: John Bale, Sons and Danielsson, Ltd. 1914.

(*b*) "A Text-Book of Organic Chemistry." By A. F. Holleman, Ph.D., F.R.A. (Amst.), Professor Ordinarius in the University of Amsterdam. Edited by A. Jamieson Walker, Ph.D., B.A., of the Technical College, Derby, Assisted by Owen E. Mott, Ph.D. 4th English Edition. Pp. 621 and xviii. London: Chapman and Hall, Ltd. 1914. Price 10s. 6d. net.

(*c*) "Spectrum Analysis, applied to Biology and Medicine." By C. A. MacMunn, M.A., M.D. Pp. 112 and xiv., with Charts and Illustrations. London: Longmans, Green and Co. 1914. Price 5s. net.

botanist will find not only accurate and important information, but food for reflection as well. In the preface Professor Gamble refers to two previous works of Dr. MacMunn as "authoritative expositions." The one under consideration is certain to be similarly accepted.

LITERARY NOTES.

The reprint by Messrs. John Wright and Sons, Limited, of the second edition, revised and enlarged, of Lieut.-Colonel P. C. Gabbett's "Manual for Women's Voluntary Aid Detachments" is opportune at the present moment, especially as so many ladies are anxious to be of some practical service to the sick and wounded in warfare. This useful little book does not deal with first aid, a knowledge of which is presupposed of its readers, but rather indicates the direction in which women's detachments may turn their study. It contains notes on nursing and diet, the preparation for emergency operations, list of equipment required for a temporary hospital, training and field drill. The last chapter deals with the question of how and where to train to become a qualified member of a W.V.A.D. The price of the book is 1s. net.

* * *

"The Year Book of Radiology for 1915" is announced by Messrs. Longmans and Co. as in preparation, edited by Robert Knox, M.D., and James H. Gardiner, F.C.S The object of the work is to give an account of the more recent advances in our knowledge of radium, X-rays, and the allied phenomena, both from the medical and the physical point of view. The volume will comprise a series of authoritative articles by specialists working in radiology, and a directory of qualified medical men practising in radiography, X-rays, radium and electro-therapeutics, both at home and abroad, also a list of hospitals and institutions where such treatment is carried out.

* * *

Our contemporary, *The Medical Officer*, has issued a leaflet on "The Best Foods to Buy during the War." It is compiled from publications of the Croydon Health Department, the National League for Physical Education, and the National Food Reform Association. A moderately complete list of flesh, fish and vegetable foods is given, and their nutritive values and low market prices stated as a guide to poor people and all others who desire to economise during the present crisis. Information is also supplied as to the preparation of some cheap and nourishing dishes, all of which appears to be framed on sound lines, and will, if followed, prove of value to those for whom it is designed. The leaflet is being supplied to Public Health Authorities for distribution.

* * *

The twentieth series of "Queer Stories" from *Truth*, like its predecessors, furnishes suitable reading for the railway carriage or the waiting-room. The stories are, as usual, entertaining, though perhaps the element of unexpectedness is not as marked as in previous years. Most of the writers make no pretence to literary style, but even complete lack of pretence is not a sufficient excuse for a split infinitive. The stories of the supernatural are among the best, and it is a tribute to the power with which "Lady Maggie's Leap" is written to say that even reading it in a railway train, it gave us a creepy feeling.

MEDICAL NEWS IN BRIEF

Plague at Hong-Kong.

The Secretary of State for the Colonies received on Monday last telegraphic information from the Governor of Hong-Kong that five cases of plague were reported during the week ended Saturday, and that there had been five deaths.

Gift of a Convalescent Home to a London Hospital.

The freehold residence of Sea Copse Hill, Whippingham, Isle of Wight, with grounds of nine acres, has been presented by Mrs. Frederick J. Kirchner as a free gift to the Royal Waterloo Hospital for Children and Women, to be used as a convalescent home.

MEDICAL WAR ITEMS,

Several medical men have enrolled themselves as special constables during the last few days.

The price of hospital bedsteads has advanced $33\frac{1}{3}$ per cent., owing to the increase in the cost of raw material.

Of the members of the St. John Ambulance Brigade 4,150 have mobilised, while there is a roll of 2,000 men waiting to sign on at a moment's notice.

Several X-ray specialists from London are proceeding to Belgium with apparatus to assist the surgical officers in charge of the wounded, in the detection of bullets, fractures, etc.

The King has given to the Westminster Division of the British Red Cross Society, 74 Vincent Square, Westminster, an ambulance and a pair of his own horses for use during the war.

There is a considerable rush to attend classes in first aid and home nursing at the present time, and centres for such instruction are being given in many parts of London and other places.

A number of Cambridge men have volunteered to man a hospital transport ship to work between the Fleet and hospital ships and hospital cases on shore. Lady St. Helier, of 51 Portland Place, is acting as treasurer.

A new naval hospital, to be called "Queen Mary's Royal Naval Hospital," is to be opened immediately at Southend-on-Sea, for the purposes of which the Palace Hotel has been placed at the disposal of a special committee which has been formed, of which Dr. W. Hale White is Chairman and Consulting Physician.

A dental unit, says the *Guy's Hospital Gazette*, is proceeding shortly to Wimereux (Pas de Calais) to assist Mr. Newland Pedley, Consulting Dental Surgeon to Guy's Hospital, in the formation of a private clinic for the dental treatment of the French and English troops, including the treatment of fractures of the jaws.

The Great Northern Central Hospital, Holloway, has placed 100 beds at the disposal of the Government, and a number of the 163 beds in the London Homœopathic Hospital in Great Ormond Street, W.C., will be devoted, when required, to naval and military patients. The Board of Management of the Metropolitan Ear, Nose, and Throat Hospital have also decided to offer the service of their institution to the Admiralty and the War Office, the staff having unanimously offered their services for the care of war patients. The Governors of Guy's Hospital have offered the whole of the resources of their dental department to the War Office for the treatment of men offering themselves as recruits who have been rejected on the ground of defective teeth.

NOTICES TO CORRESPONDENTS, &c.

☞ Correspondents requiring a reply in this column are particularly requested to make use of a *Distinctive Signature or Initial*, and to avoid the practice of signing themselves "Reader," "Subscriber," "Old Subscriber," etc. Much confusion will be spared by attention to this rule.

SUBSCRIPTIONS

Subscriptions may commence at any date, but the two volumes each year begin on January 1st and July 1st respectively. Terms per annum, 21s; post free at home or abroad.

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CONTRIBUTORS are kindly requested to send their communications, if resident in England or the Colonies, to the Editor at the London office, 8, Henrietta Street, Strand; if resident in Ireland to the Dublin office, in order to save time in reforwarding from office to office. When sending subscriptions the same rule applies as to office; those should be addressed to the Publisher.

ORIGINAL ARTICLES OR LETTERS intended for publication should be written on one side of the paper only and must be authenticated with the name and address of the writer, not necessarily for publication, but as evidence of identity.

REPRINTS.—Reprints of articles appearing in this JOURNAL can be had at a reduced rate, providing authors give notice to the publisher or printer before the type has been distributed. This should be done when returning proofs.

J. S. (Huddersfield).—The death-rate last week was slightly above the average according to the Registrar-General's returns, but this need cause no anxiety, as even so the mortality was only 11.9 of the entire population referred to.

DR. H. C. B. (Birmingham).—We have no information to hand upon the subject of our correspondent's letter.

STAKES.—The chemistry of chlorophyll is fully discussed in a work just published by Longmans and Co., by the late Dr. C. A. MacMunn.

L. S. A. (Hastings).—In response to your inquiry there can be no doubt that the prompt treatment of dysenteric affections is of the greatest importance to soldiers in the field. When immediate medical assistance is not forthcoming there can be no harm in the self administration of a few drops of chlorodyne. As a matter of fact, this remedy was found of real value to the troops in the Franco-Prussian War of 1870, and also in the Boer War.

OMEGA (Brighton).—Polycythæmia is now being held as a valuable pathognomonic sign of duodenal ulcer. In gastric ulcer and appendicitis there is usually a mild degree of anæmia.

M.R.C.S., L.R.C.P.LOND.—The condition of status lymphaticus is quite consistent with good health. Its existence nevertheless as a morbid entity is well established, despite the fact that it has been found in apparently healthy persons killed accidentally.

WORKMEN'S COMPENSATION ACT, 1906.

THE Home Secretary asks us to announce that in consequence of the resignation of Mr. Charles S. Lunan, M.B., Medical Referee under the Workman's Compensation Act, 1906, for the Eastern District of the Sheriffdom of Perth, the appointment held by him is now vacant. Applications for the post should be addressed to the Private Secretary, Scottish Office, and should reach him not later than the 4th September, 1914.

DR. L. W. HYDE (Hillsborough).—The publisher informs us that the issue of this journal for March 12th, 1913, is now out of print.

DR. E. L. DRACH (Chicago).—Is referred to the reply to Dr. Hyde.

DR. T. C. (S. Wales).—There is no need to go to the expense of providing costly structures for the home open-air treatment of consumptives who cannot be admitted to sanatoria. The Woolwich authorities are now providing shelters on hire at a small charge to poor patients for use in back yard or garden, and these are constructed of quite inexpensive material. This is an example which might well be followed by other municipalities.

M.B. (Brighton).—It is a consolation to know that some drugs, including vaseline and lysol, will not be advanced in price at present during the war. At the same time it behoves private as well as hospital dispensers to exercise the strictest economy in drugs and dressings.

M. B. R. (London, E.).—It is stated on good authority that plague has greatly diminished of late in India owing, it is thought, to a period of rat immunity, but fears are expressed in case the tide may suddenly turn and another big epidemic show itself.

Vacancies.

Swansea General and Eye Hospital.—House Surgeon. Salary £125 per annum, with board, washing, and attendance. Applications to W. D. Hughes, Secretary.

Swansea General and Eye Hospital.—House Physician. Salary £125 per annum, with board, apartments, and laundry. Applications to W. D. Hughes, Secretary.

Cornwall County Asylum, Bodmin.—Junior Assistant Medical Officer. Salary £225 per annum, with furnished quarters, board, laundry, and attendance Applications to the Medical Superintendent.

Nottingham General Dispensary.—Assistant Resident Surgeon. Salary £180 per annum, with apartments (not board), attendance, light and fuel. Applications to C. Cheesman, Secretary, 12 Low Pavement, Nottingham

Wrexham Infirmary.—Resident House Surgeon. Salary £120 per annum, with board, lodging, and washing Applications to Frank Sisson, Secretary, 7 Hill Street, Wrexham.

Sheffield Hospital.—House Surgeon. Salary £120 per annum, with board and residence at the Hospital. Applications to Mr. Frederick Gill, Secretary, 14 Norfolk Row, Sheffield.

Aberystwyth General Hospital.—House Surgeon and Secretary. Salary £175 per annum, all found. Applications to the Secretary.

Norwich City Asylum, Hellesdon, near Norwich.—Assistant Medical Officer. Salary £250 per annum, with board (no alcohol), apartments, attendance, and laundry. Applications to the Medical Superintendent.

Royal Edinburgh Asylum, Morningside.—Assistant Physician. Salary £175 per annum. Applications to the Physician Superintendent.

Hulme Dispensary, Manchester.—House Surgeon. Salary £180, rising to £200, with apartments, coal and gas. Applications immediately to Hon. Medical Secretary. (See advt.)

County Asylum, Whittingham.—Junior Assistant Medical Officer, also an Assistant Medical Officer. Salary £250, rising to £300 per annum, with furnished apartments. Applications to Medical Superintendent. (See advt.)

Appointments.

CAIRNS, GEORGE DOUGLAS, M.B., Ch.B.Edin., Assistant School Medical Officer for Kirkcaldy District.

CREASEY, R., L.R.C.P., M.R.C.S., House Physician at the Bristol General Hospital.

EVANS, DOUGLAS GORDON, M.B., B.S.Lond., House Surgeon at the Royal Infirmary, Sheffield.

FAYLE, B. J. L., L.R.C.P.Lond., M.R.C.S., House Surgeon at the Bristol General Hospital.

HARRISON, C. C., M.B., B.S.Lond., House Surgeon at the Bristol Royal Infirmary.

JOHNSON, R. B., L.R.C.P.Lond., M.R.C.S., House Physician at the Bristol General Hospital.

MALABER, BRUCE, L.R.C.P. and S.Irel., House Surgeon at the Royal Infirmary, Sheffield.

PARKER, H. G., F.R.C.S.Edin., L.R.C.P.Edin., Honorary Aural Surgeon to the Bolton Infirmary and Dispensary.

SOWERBY, E. S., M.B., B.S.Lond., House Physician at the Bristol Royal Infirmary.

THORNLEY, N. G., M.B., Ch.B.Edin., Honorary Aural Surgeon to the Bolton Infirmary and Dispensary.

Births.

MOLE.—On August 10th, at 19 Mortimer Road, Clifton, Bristol, the wife of Harold F. Mole, F.R.C.S., of a son.

Marriages.

BEATON—ESSEX.—On August 8th, at Epsom (owing to the war crisis), Thomas Beaton, M.D., temporary surgeon R.N., son of Mr. and Mrs. Thomas Beaton, of Forest Hill, to Mildred Marie, daughter of Mr. and Mrs. F. W. Essex, of Ashtead, Surrey.

HALLWRIGHT—PIEREMONT.—On August 10th, at Holy Trinity, Aldershot., Dr. Guy Hallwright, of New Zealand, son of Dr. M. Hallwright, of Edgbaston, Birmingham, to Ethel May Pieremont, daughter of Herman Pieremont, Esq., of Sydney, Australia.

MALPAS—SCHARLACH.—On August 15th, at All Souls, Langham Place, Dr. Douglas Duncan Malpas, elder son of D. D. Malpas, M.D., of Biarritz, France, to Hilda Louisa, daughter of Mr. F. Scharlach, of The Briers, Higams-park.

MOUAT—MACMILLAN.—On August 15th, at St. John's Presbyterian Church, Kensington, London, Alexander Mouat, M.B., Colonial Medical Service, third son of the late Alexander Mouat, Seafield, Leith, to Margaret Thomson Logan, elder daughter of the late Rev. H. Logan MacMillan, Presbyterian Church of Scotland.

PHILBRICK—CANDLER.—On August 13th, at St. Luke's Church, Hampstead, very quietly, John Harold Philbrick, M.B., youngest son of Mr. and Mrs. Philbrick, of Wokingham, Berks, to Bertha Nellie Candler, youngest daughter of Mr. and Mrs. Howard Candler, of 7 Briardale Gardens, Hampstead.

WATSON—WALTON.—On August 15th, at the Curragh, quietly, Captain Douglas Percival Watson, Royal Army Medical Corps, second son of the Rev. H. C. Watson, vicar of Gainford, and Mrs. Watson, to Dorothea Noel, eldest daughter of Sir Edgar Walton, K.C.M.G., and Lady Walton, South Africa.

Deaths.

BRUCE.—On June 30th, at Quilpué, near Valparaiso, Chile, Peter Bruce, M.R.C.S.Eng., L.D.S.Eng., L.S.A.Lond., aged 63.

CHANING PEARCE.—On August 11th, at Montague House, Ramsgate, Elinor Lois, the loved wife of Dr. Chaning Pearce, aged 68.

HUNTLEY.—On August 8th, at 110 Albert Road, Jarrow, Robert Elliott Huntley, J.P., M.D., St. And., M.R.C.S., L.S.A., aged 74.

KELSALL.—On August 12th, at Surbiton, Isabel Gertrude, wife of Captain Robert Kelsall, Indian Medical Service, and only daughter of the late Brigade-Surgeon Edward James Sexton, aged 38.

MACCARTHY.—On August 14th, at 22 Churchill Road, Boscombe, Hants, after a long illness, W. Ffennell MacCarthy, B.A., M.D., T.C.D., son of the late Charles Ffennell MacCarthy, D.D., of Dublin.

McCULLOCH.—On August 12th, suddenly, at Bognor, Dr. Henry D. McCulloch, M.B., of 77 Gloucester Place, London, W., aged 54.

TREWHELLA.—On August 9th, at Monart, Torquay, Henry Ellery Trewhella, M.D., aged 82.

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THE MEDICAL PRESS AND CIRCULAR.

"SALUS POPULI SUPREMA LEX"

VOL. CXLIX. WEDNESDAY, AUGUST 26, 1914. No. 9.

NOTES AND COMMENTS.

"Business as Usual." THE partial paralysis of trade and of all the complicated mechanism which goes to make up social existence, consequent upon the first declaration of hostilities in this country, is now, happily, beginning to show unmistakeable signs of a revival. Thanks to the prompt intervention of the Government, food prices, which at one time threatened to be outrageous, have now been regulated, and there is every reason to believe that in this respect matters will further improve as the great trade routes at sea become once more opened up. Slowly but surely the masses are taking a saner outlook upon the general conduct of business, and hope, one of the greatest of mental stimulants, is beginning to awaken men's responsibilities to their King and country. It would be unreasonable, even on the part of the most independent citizen, to expect neither loss nor dislocation of some kind at this critical time in our history; but, at the same time, it is the bounden duty of every loyal subject to preserve, so far as may be possible, normal relationships with his fellow men and not, from motives of self-advancement or greed, to make their lot harder. There are many besides actual combatants who will go under in the present strife. Let each one see to it, then, that he place no stumbling-block in his brother's way by making the conditions of life unnecessarily harder in this time of stress. Now that the wave of panic is subsiding it behoves us all to depart as little as possible from the ordinary tenour of our way. The foolish policy of cancelling all holiday arrangements is as short-sighted as it is selfish, for change of air is as necessary for tired workers as an influx of visitors into the seaside hotels and boarding-houses. In short, the motto of "Business as Usual" should be adopted in spirit, if not in letter, by all British subjects.

Home Medical Service. IN some ways the medical profession in this country will be hardly hit during the war. Those practitioners who have left their practices and resigned their appointments to minister to the greater need of the sick and wounded abroad can rely upon their places being kept open for them upon hospital staffs, but they are not always certain of finding their practices intact upon their return. This is a risk which all who have gone to the front cheerfully accept, and in many cases there has been little or no time to make arrangements for the carrying on of their practices during their absence. Many of those who remain at home find themselves faced with the increased work of looking after other practices in addition to their own, while others are suffering actual loss, probably of only a temporary character, from lack of regular patients and from the addition of extra gratuitous work. It is understood that, in order to adjust medical practice in Scotland while so many practitioners are away, a special Medical Service Emergency Committee has been formed which has made certain suggestions for the carrying on of medical work at home with as little dislocation as possible. This body has recommended that retired practitioners who are willing to step into the breach should send in their names forthwith to the Committee for registration and ultimate allocation to temporarily vacant practices. The suggestions that the visiting staffs of public institutions should themselves undertake certain of the duties usually assigned to junior resident officers during the absence of the latter, and that school medical officers should be permitted to give at least part of their time to general work, strike us as being thoroughly practical, even if a trifle revolutionary, but in times like the present many of the accepted rules of medical etiquette and practice must be waived in favour of the common good.

War, Wine and Women. SOME wise advice was given by Lord Kitchener to the soldiers of the British Expeditionary force upon their departure to the front. After the usual martial and patriotic monitions he dwelt upon the desirability of each man keeping himself as "fit" as possible, in order that he might serve his country to the best advantage. At that point the ordinary cut-and-dried official manifesto would have ended, but the War Secretary is not given to general phrases in a matter of this kind. He wound up with a specific warning against the temptations of wine and women to troops on active service. This is almost certainly the first occasion in modern times that a General has given detailed advice of that kind to his army, although it was common enough in Puritan and Presbyterian armies and others having strong religious convictions.

The Fighting Unit. IN one way this new departure reflects the greatly increased value now attached to the individual soldier as a fighting unit. There can be little doubt that the British trooper of to-day drinks far less than his predecessors in former generations. So far as that goes, indeed, he shares the tendency of the rest of the community towards a lessened indulgence in alcoholic beverages. A soldier of drunken habits is obviously a source of constant danger to himself and his comrades. Sexual indulgence falls under another heading, inasmuch as a physiological factor is therein concerned. Reducing the matter to its ultimate terms it seems probable that any harm to the individual soldier arising from intercourse is not so much due to the act itself as to the risk of contracting venereal disease. In any case the British soldier will do well to lay the words of Lord Kitchener to heart. In times of peace the strength of the Army is seriously drained by the sickness due to venereal diseases. In times of war the injury inflicted by that class of disease is infinitely more damaging to an expeditionary force, in which it is necessary to maintain the highest possible standard of general health.

A Famine in "606."

Of late the incidence of venereal disease has been reduced in both Army and Navy. Not only has the actual number of cases been lessened, but the average stay in hospital has undergone a similar decrease. To some extent this satisfactory state of affairs is no doubt due to the better class of men who now enter the ranks of the Army, and also in part to a better knowledge of the facts of the case and more careful supervision by the authorities. Another important factor is the great improvement which has taken place in the scientific treatment of venereal disease of all kinds. It will be interesting to note what effect the sudden shortage in the supply of salvarsan and neo-salvarsan have upon the health statistics of the Army. Both forms of "606" are made exclusively in Germany by German firms by processes the secret of which is carefully guarded. In the course of time it will be no doubt possible for the English chemists to produce salvarsan synthetically, but at the best they could hardly hope to achieve so difficult a task without many months of arduous investigation and experiment. Meanwhile war with Germany means a famine of salvarsan and neo-salvarsan, that is to say, after the available stock on hand in the United Kingdom is exhausted. It would be difficult to furnish a more striking illustration of the far-reaching effects of war than that afforded by the spectacle of syphilis wreaking its dread ravages upon a populace depleted of the marvellous specific remedy evolved by the genius of the great German scientist, Professor Ehrlich. It is curious to note that a philosophy-ridden nation should devote its energies with equal fervour and success on the one hand to the destruction and on the other to the saving of human life.

Anæsthetics for the Front.

One of the most pressing needs of the military hospitals at the present moment appears to be chloroform, and there are also wanting men to administer it. It is appalling to think that the beneficent and conservative operations of surgery may be seriously hampered, and many of them rendered impracticable, by the lack of the all-important anæsthetic. Morphia may act as a partial substitute, but it is vastly inferior to any of the recognised general anæsthetics, while its use may jeopardise the success of many an operation, even in these days of rapid surgery. It will be interesting to learn whether intraspinal anæsthesia will be employed to any large extent in the base hospitals. For general simplicity of administration and rapidity of induction, the use of one of the chloroform mixtures with ether will probably still find favour, especially with civilian surgeons, not professional anæsthetists, who are called upon to act in that capacity. There can be no doubt that the prevention of shock from an operation is largely a matter of the anæsthetic, and for this reason, as well as to enable surgeons to do other work, there is a real demand for anæsthetic specialists at the front, for an operation has, obviously, a much better chance of success when the surgeon is untrammelled by any misgivings with regard to the safety of the patient. It is reported that several private gifts of chloroform have been made to the Belgian military hospitals, and for these gratitude must be expressed to the donors. There is urgent need, however, for more, and the attention of philanthropic patriots may well be called to the matter.

LEADING ARTICLES.

WAR AND THE DRUG SUPPLY.

The general dislocation of trade consequent upon the war has, if we except food, nowhere made itself more acutely felt than in connection with the supply of drugs. The intervention of Government regulation and the partial re-establishment of the shipping routes have, happily, done much to relieve distress consequent upon the diminished supply of food. In the case of drugs, however, the case is somewhat different. A large number of synthetic preparations are manufactured almost entirely in Germany, and for many years past practitioners in this country have been accustomed to employ them on account of their superiority, in many respects, to similar remedies made by home industry. The supply of all these so-called fine chemicals is now cut off until the war is over. Other drugs such as the bromides, and particularly potassium bromide, have rapidly risen to famine prices, owing to the fact that the mineral deposits from which they are at present obtained are found chiefly in Germany. It is most opportune, therefore, that, upon the recommendation of Sir Thomas Barlow, K.C.V.O., and the British Medical Association, a professional Committee has been appointed by the Government to "consider questions arising in connection with the supply of drugs for curative purposes in the United Kingdom, with special reference to the ways in which the medical profession can assist in effecting economies in the use of these drugs of which the supplies are at present small." The following members have been appointed to act upon this Committee, of which Mr. J. Smith Whitaker is the chairman:—Sir Thomas Barlow, Bart., K.C.V.O.; Sir T. Lauder Brunton, Bart.; and Drs. A. Cox, E. Rowland Fothergill, B. A. Richmond, F. J. Smith, W. Hale White, and E. W. Adams (Secretary). The principal departments of medical practice are well represented upon this advisory body which has already issued certain notes for the individual guidance of medical practitioners as to how they can economise with certain drugs. It is realised that there are many drugs, the shortage of which is merely temporary, and the sources of supply of these may be re-opened or alternative sources found, within a comparatively short period. In the case of other drugs already referred to the resources of the pharmacopœia must be tapped in order to find substitutes, more or less efficient, no doubt, for the treatment of individual cases. In private practice this is often more easy to accomplish than in the case of hospital out-patients who highly resent any change being made in the medicine which they have guilelessly swallowed for months or even years. If each member of the medical profession will loyally assist the efforts of those who are endeavouring to readjust the temporary disorganisation and to create fresh sources of supply by carrying out the recommendations of the Committee he will be rendering no small service to the community in general. It may well be that British manufacturers will now see their opportunity to prepare many, if not all, of those pharmaceutical products which, hitherto, they have been content to let others do for them. Certain difficulties have, it is well known, stood in the way, foremost among which has been the duty placed upon alcohol. Now is the time for the removal of this tax upon raw spirit for the purposes of chemical industry as it has already been done in cases where alcohol has been needed for research work. There is no need for any panic in connection with the supply of drugs any more than there was in the case of food, and we may confidently look forward to one great result of the war—namely, the production of most of these drugs in this country upon a scale sufficient to meet the needs of the sick population.

CURRENT TOPICS.

The Way Round.

We all know that our drugs are costing us more. If we did not the confidential circular issued by the Government would make us realise it. Apart from the necessary shortage brought about by interruption of communication and an increased demand—which, after all, are only temporary factors—there is the fact that heretofore we have largely depended on the Continent for many of our supplies—notably salicylic acid and its many derivatives, potassium salts and the enormous mass of synthetic proprietaries, mostly German, which have lately found favour amongst us. Now we are expressly prohibited by Royal Proclamation from trading with the enemy, which term covers any person in the German Empire. There is, however, an exception which may be a matter of considerable importance to us—"This Proclamation shall not apply to the trading or commercial intercourse carried on by such person solely from or by such houses or branches of business in such other country." Now, several of the great German chemical houses possess branches or agencies of some sort or other in neutral countries, especially in Great Britain and America, and it seems quite possible that business may be resumed in this round-about way. Of course, there is no prohibition against selling stocks obtained here previous to the declaration of war, and it is apparently possible that we may in the way indicated obtain a share of such subsequent supplies as are available. The question of patriotism hardly occurs. To refuse goods on which the health, or even the life of our people may depend, in order to keep a few shillings out of the enemy's pocket, would be a short-sighted policy indeed. And, in addition, in our professional capacities, we are international. We are not combatants but adjusters of the results of combatism. We would do our best for the friend or foe who needed us alike. So it were the veriest folly to deny ourselves lawful therapeutic weapons needlessly.

Ambulance Work in War.

The whole country is responding to the Government's call. Everywhere we hear of nothing but corps and rumours of corps. The first idea of the man in the street is to get at the enemy; his ideal is a pair of putties and a rifle. So be it. In addition to the civilian definitely militant, we find the civilian expectant—the man who thinks to a certain extent and realises that there is such a thing as organisation in various forms. Business, family or other reasons keep him from volunteering, and, accompanied by his womenkind, he applies to the varied powers that be for ambulance training. Everybody is taking out courses in first-aid and kindred arts. A great many are impelled to do so by an unconquerable and highly laudable impulse to do something, no matter what. Comparatively few ask what is or will be the ultimate use of so many lectures, demonstrations, and examinations. They realise that the short training they will get will not fit them to understudy the Royal Army Medical Corps on the field of battle, and they do not know what else there is for them to do. It is for the medical profession, who will be called upon to teach these eager and largely ignorant throngs, to know the exact why and wherefore of all these efforts, and, as we have often found a discreet vagueness in answering the insistent "*cui bono?*" of the class, let us get the thing down plainly for once. B.O. 183, issued by the St. John Ambulance Brigade, contains the following as the duties of Brigade Voluntary Aid Detachments:—They "will be expected to be able to give intelligent assistance in the transport of and attendance on sick and wounded in a war of invasion under the direction of senior officers of the Army Medical Service. They will be employed on the lines of communication between the field ambulances and the general hospitals in the following positions: Clearing hospitals, entraining stations, ambulance trains. . . . Rest stations, private hospitals, convalescent homes." Here we have our duties in a nutshell; they apply to men and women alike. Ambulance detachments are part of the country's considered scheme, and for the future we hope to hear no one suggesting that ambulance and nursing classes are a waste of time or a work of supererogation.

The New Recruits.

The physical standard of the new recruits has surprised and delighted the War Office. The number of rejections for physical unfitness has reached a record, far below anything that was expected. This, no doubt, is largely due to the class of men which is presenting itself for enlistment. In times of peace the War Office finds its efforts limited principally to the wastrel class, the poorer members of the community to whom enlistment in the army offers the only chance of relief from degrading poverty. Their decrepit appearance is mostly the result of the want of sustenance; to stave off the pangs of hunger, they contract the habit of smoking to excess cheap cigarettes: tobacco takes the place of food, and from its baneful effects the candidate for enlistment is mostly rendered unfit for the requirements of military service. On the other hand, the war has shown how the nation can rely upon its manhood, drawn from the more favoured classes of the community. In them, no doubt, is reflected the good purpose served to the nation by the manly spirit of athleticism. From the cricket fields, the tennis courts, the football fields, the golf courses and hockey clubs, there have presumably poured thousands of active, athletic youths, whose energy and physique have been built up by their passion for the national games. Every now and then the cry has asserted its pessimistic note, that as a race we are degenerating; the proof of which was claimed in the evidence of the rejection at the recruiting stations. The reports in this regard have from time to time made some impression upon the public mind that the pessimists had good ground for their assertions. Happily, however, this war has clearly established that the pessimism of the pessimists was unfounded and wrong. Poor underfed lads are no reflex of the manhood of the nation; but even they, with good chances, can often be converted into good material for the nation's requirements.

The Medical Profession and Bonesetters.

The claim by laymen for bonesetters—so-called—to be entitled to a niche in the temple of medicine is perennial. They talk of justice, of fairness, of the trades unionism of doctors, and punctuate their convictions by pointing to the expert knowledge of bonesetters, and the absence of it in regular members of the profession. Of course, many cases of marvellous cures are related, where the doctors have failed and the bonesetters succeeded. A few weeks ago a long discussion was maintained in one of the morning papers upon the skill and capability of a certain bonesetter, of which examples were given. The editorial bias was freely expressed against the medical profession, and howls of execration greeted the insertion of a communication from a medical man who ventured to express the professional aspect of the case, by succeeding correspondents. Curiously enough, too, one or two medical men took the layman's side, and affirmed their belief in the bonesetter's art. But we do not propose to reopen these arguments in explanation of the attitude of the profession upon this question. That ethical position has been clearly defined upon many occasions. We should, however, like to point out that laymen make the mistake of believing that it is within the power of the profession to admit bonesetters as members of their community. That power does not belong to the medical profession. The question is one which bears solely upon the medical Acts. Unqualified practitioners of medicine or surgery are not recognised by the State. On the other hand, if qualified members of the profession, even in good faith, lend any of their support to unqualified practice, their action in this regard becomes illegal, and punishment overtakes them. With the public, however, the matter is different. There is no law prohibiting a layman employing whom he likes to cure him of his ills. But the State accepts no responsibility in the matter of unqualified practice. If the layman elects to consult a bonesetter the matter is purely one between himself and the man whom he chooses. We do not deny that evidence is in favour of the usefulness in some cases of the manipulations of bonesetters, but this can scarcely be urged as a plea in favour of medical men lending their support to unqualified practice—apart from the illegality of the proceeding.

Vaccination in Ireland.

Until within the last few years Ireland was the best vaccinated part of the kingdom, and one of the best vaccinated countries of the world. Unfortunately, the anti-vaccination campaign found a footing in certain districts, and boards of guardians refused to enforce the vaccination laws. The Local Government Board, with whom the responsibility rests when boards of guardians neglect their duties, contented itself with giving mild advice, and took no real measures to see that the laws were obeyed. The results are shown in a return recently published by the Registrar-General. In the year 1905, 82 per cent. of the children born were returned as successfully vaccinated. In 1909 this had fallen to 78.3 per cent., in 1911 to 72.6 per cent., and in 1912 it was further reduced to 66.3 per cent. The falling-off is definitely associated geographically with the anti-vaccinist campaign. It is most marked in the south-east corner of Ireland, and hardly noticed at all in Ulster. Thus, in co. Wexford, only one in seven children born was vaccinated. In Tyrone, Antrim, and Londonderry, on the other hand, the numbers unvaccinated were negligible. The Local Government Board, by its negligence, has allowed a very serious condition of affairs to arise.

Sugar and the War.

By doubling the price of sugar, the war has brought home to the householder the need for economy in the consumption of this useful commodity. Sugar may be regarded in two aspects: first as a necessity, and secondly as a luxury. In both respects it is liable to be consumed in excess. As a necessity, of course, sugar is invaluable in the form of a nutrient. It serves the double purpose of increasing the nutritive value of other food, while at the same time rendering the latter more acceptable to the palate. In the form of a luxury it figures as so-called "sweetmeats," of which the confectioner's art has produced an endless variety. Hence the person who is said to have a "sweet tooth" is one to whom all sweet things are agreeable, and so is engendered the habit of gratifying that *penchant* upon all available occasions. But sugar in excess "dumped" into the human machine is by no means harmless in its effects. Many human ills, directly or indirectly, are the consequence. In the indolent, inconvenient obesity is a common tendency; dental trouble, again, is often a direct result, for sugar possesses a solvent action upon the enamel which preserves the integrity of a tooth. Again, gastric disturbance provocative of dyspepsia, destructive intestinal fermentation, and the changes produced in the blood indicated in the evolution of certain dermatoses, may be mentioned. As a matter of fact, from an economic standpoint the cheapness of sugar in the past has not been an unmixed blessing. Its food value, of course, is undeniable; sugar is almost indispensable to human daily subsistence; but its value as a food is entirely dependent upon the avoidance of its excessive use. On the other hand, the cheapness of sugar has become the direct cause of over consumption, and it is quite possible that the war, by compelling some economy in the use of sugar, will enable many classes of the community to learn that both health and general well-being are improved by taking less of it. War teaches us many things: and one of its lessons, perhaps one of the greatest, is that of self-denial. Here, then, is an opportunity for those who indulge their saccharine propensities of curbing a habit which, carried to excess, is productive both of waste and harm.

The Psychology of Patience.

The man who first described patience as a virtue was a philosopher to whom the world has since been indebted. His simple enunciation of a great truth showed the means by which the great burden of exercising patience could be lessened and more easily sustained. Patience, having been endowed with the dignity of a virtue furnishes an ideal at which to aim, namely, that of a high degree of moral control, both of mind and body. The "immortal William"—not the gentleman at present suffering from a bad attack of megalomania—has said: "How poor are they that have not patience," and again:—

"'Tis all men's office to speak patience
To those that wring under the load of sorrow."

The burden of exercising patience has been cast upon us in this country; the patience of waiting for news which never comes, the patience of the moment, in which is concealed from us information which the exigencies of the occasion demand to be kept secret. Among many thousands of our countrymen and women this burden of patience will exact much fortitude and resolution to prevent the support of moral courage from breaking under the strain. Let these, therefore, bear in remembrance that a healthy mind in a healthy body is the first necessary condition to enable them to deal with the burden under which they labour. The maintenance of strength of body and of mind is a sure means for combating successfully the trials of the situation.

Water-borne Diseases.

Many rumours have been current during the past week or two of attempts being made to poison the water supplies in various districts, the majority, if not all, of these being absolutely without foundation. Local authorities are fully alive, however, to the possibility of such malicious contamination of water destined for drinking purposes, and the curious sight may be witnessed in some parts of London of the guarding of the entrances to reservoirs by Territorials. As a matter of fact it would be almost a physical impossibility to poison drinking-water by chemicals in bulk without being detected, and even if this were to be carried out it is doubtful whether the quantity so introduced would be sufficient to produce the desired effect. Far more deadly would be the contamination of a water-supply with living pathogenic micro-organisms of the variety known to be transmitted by this channel. There is a greater necessity than ever of keeping water supplies up to the bacteriological standard of safety. This warning was uttered only last July at the Congress of the Royal Institute of Public Health, held in Edinburgh, when Prof. J. M. Beattie read an address in the absence of Prof. Ritchie before the Section of Bacteriology and Comparative Pathology on the relationship of bacteriology to water-borne disease. In some country districts the danger of polluted wells still exists, and even in places where the supply is taken from rivers or reservoirs it not infrequently happens that coliform bacilli find their way into the water. The frequent bacteriological examination of all water supplies is always desirable in the interests of public health, and never was it more urgently required than at the present time. In the meanwhile it is safer to boil all drinking water in cases where the slightest doubt exists as to its purity.

The Office of Coroner.

A movement is on foot in America to abolish the office of coroner. It is held that in order to determine the exact cause of death the coroner is compelled to call in the aid of experts to decide the matter for him. Again, it is maintained that the coroner's jury is a useless expense, inasmuch as their verdicts are in accord with instruction furnished by the expert evidence. The idea seems to be that instead of a coroner being called upon to inquire into the cause of death, the matter should be made one for the police from the beginning. So in America a Board of Inquiry would be constituted, consisting of a skilled pathologist, the district attorney, and a representative of the police department, to investigate every case in which the cause of death was uncertified, either in consequence of the suspicion of crime or from any other reason. This board would be empowered to summon witnesses, and the cause of death having been determined, the matter would end, save in cases in which evidence was forthcoming of the commission of crime, when the police would take action with a view to the arrest of the suspected person. The proposed change seems to have been suggested on the score of economy, though it is doubtful if it would be more efficient than the present system. The coroner's court is admittedly a costly process in this country. The advance, however, of medical science has removed some of the difficulties of ascertaining the cause of death, and an inquest seems to be in some cases a cumbersome and expensive means of making public facts which expert knowledge has already revealed. One advantage of such a reform may be best illustrated in the numerous cases in which inquests result in verdicts of death from natural causes. For example, an elderly man suddenly drops down dead in the street. But because no one can tell the means by which death took place, the machinery of the coroner's court is set in motion to determine the point. Then a *post-mortem* reveals rupture of a cerebral artery and cerebral hæmorrhage. Under the alternative system the dead body would at once pass into the hands of the police; the pathologist of the district would then make a *post-mortem*, and having found that the man had died naturally from cerebral hæmorrhage, the matter would end. It is urged that economy, simplicity and efficiency would be attained, in the place of unnecessary formality, expense, and the interruption to business generally entailed upon the attendant jurymen. The details of the system, of which the above is a mere outline, would naturally require careful consideration in order to achieve the object in view. Some responsible official would have to preside at such an inquiry, and it hardly seems likely that the ancient office of coroner, held as it generally is by professional men qualified in medicine and law, will be superseded in this country yet awhile.

PERSONAL.

Dr. Eardley Holland, M.D.Lond., M.R.C.P., F.R.C.S., has been appointed Assistant Obstetric Physician to King's College Hospital.

Dr. H. Drinkwater, of Wrexham, has been elected President of the North Wales Branch of the British Medical Association for the ensuing year.

Dr. Alexander Gibb Glass, M.A., M.D.Edin., D.P.H., has been appointed an Assistant School Medical Officer under the Durham County Education Committee.

Dr. Oliver Field has been appointed Deputy Medical Officer of Health for Wandsworth during the absence of Dr. P. Caldwell Smith, who is serving with the Territorial Force.

Two private wards at the Newbury District Hospital were opened the other day as a memorial to the late Dr. R. J. Kerby, a well-known practitioner who was greatly esteemed in the district.

CLINICAL LECTURE

ON

MITRAL STENOSIS: ITS PROGNOSIS AND TREATMENT. (*a*)

By R. OSWALD MOON, M.D.Oxon., F.R.C.P.Lond.,

Consulting Physician to the Western General Dispensary, Marylebone; Physician to the Hospital for Diseases of the Heart.

Clinically the ordinary picture of a case of mitral stenosis is well known to all practitioners. The most common case is that of a young woman, say, between 17 and 30, who comes complaining of shortness of breath, or headaches, or cough, or some symptoms of indigestion. To all appearance it might be a case of anæmia, simple dyspepsia, or perhaps phthisis; at this stage nothing but an examination of the chest will disclose the cardiac lesion, which is frequently detected without there being any cardiac symptoms at all. Inquiry into the previous history will generally disclose the fact that the patient has suffered from rheumatism, chorea or frequent quinsies, or it may be scarlet fever; in very many cases, however, there may be no history of previous illness. Nearly all such cases are, I think, primarily rheumatic, especially when one realises how slight and indefinite may be the manifestations of rheumatism in early childhood—nothing more, perhaps, than transient pains in the limbs which may be mistaken for growing pains, or a temporary stiffness of the neck. As compared with mitral regurgitation there is no doubt that mitral stenosis is associated with the less pronounced forms of rheumatism. Some, indeed, have maintained that mitral stenosis is sometimes of congenital origin, but I have failed to discover any satisfactory evidence of this.

Mitral stenosis does, indeed, sometimes occur as a result of arterio-sclerosis, but this is not at all common, and appears at a later age than the more ordinary form. Speaking generally, mitral stenosis is the cardiac lesion which we find most frequently in women between the ages of 12 and 40. It is rare to meet with clear evidence of mitral stenosis under the age of 10, though mitral regurgitation is common enough in quite early childhood, but the lesion of stenosis takes some time to develop, as it is due to the slow contraction of the fibrous tissue of the valves, and then in children the left auricle does not usually contract with sufficient force to give rise to the presystolic murmur. On the other hand, cases of mitral stenosis in patients over 40 are more usually of the arterio-sclerotic type.

Diagnosis.—In its more obvious aspect mitral stenosis is the easiest to diagnose of all the cardiac lesions: palpation alone being often sufficient for the purpose, as the presystolic thrill (often best felt in the sitting posture with the body bent forwards) is most characteristic of the lesion and the long, rumbling presystolic murmurs running up to the first sound and very limited in area is equally significant. In my experience this murmur is often heard in the recumbent posture, when it has not been audible with the patient standing up—particularly if he is made to raise the left arm. The only case in which a presystolic murmur can lead us astray in diagnosis is when, in aortic regurgitation, the regurgitation of blood into the left ventricle brings about a virtual stenosis at the mitral orifice: this goes under the name of Flint's Murmur. It may be distinguished from the true presystolic murmur of mitral stenosis as follows: (1) It is never so loud or rasping; (2) the presystolic thrill very rarely accompanies Flint's Murmur; (3) the systolic shock is tapping in mitral stenosis, forcible and rather heaving in aortic regurgitation with a Flint's Murmur.

In an ordinary well-compensated case we should expect to find accentuation of the pulmonary second sound, owing to the increased tension in the pulmonary area caused by the obstruction at the mitral valve. At times we may find a reduplicated second sound in the pulmonary area or at the apex, where it is due to the first inrush of blood in the ventricle, such inrush being more sudden and forcible than under normal conditions from the increased blood pressure in the left auricle due to constriction of the mitral orifice. The cardiac dulness is increased to the right; owing to atrophy, rather than hypertrophy, of the left ventricle, the dulness is not likely to be much, if at all, increased to the left. There is often a more pronounced enlargement of the right side of the heart in mitral stenosis than in mitral regurgitation.

In those cases which develop in connection with arterio-sclerosis there will not be a reduplication of the second sound, because the blood pressure will be raised in the systemic circulation owing to the arterio-sclerosis no less than in the pulmonary area, hence the two sounds will be approximately equal and there will be no reduplication.

As the disease progresses the auricle becomes gradually weaker, and consequently it has no longer sufficient force to produce the presystolic or auriculo-systolic murmur, hence we may hear in its place a mid-diastolic or even an early diastolic murmur. This latter one must be careful not to confound with the murmur of aortic regurgitation, which is softer and more blowing in character and less often confined to the region of the apex. This is the point at which to speak of auricular fibrillation, about which so much has been said by recent writers on cardiac disease. Though auricular fibrillation may occur under a variety of circumstances in which there is degeneration of the myocardium, it is with mitral stenosis that it is particularly associated, so I will just say a few words about it here, though it would be more suitably dealt with in a lecture on cardiac arrhythmia.

Now, the ordinary beat of the heart starts at the mouths of the great veins opening into the auricles, and this is known as the "sino-auricular node." Beginning here the impulse passes down the auricles along the auriculo-ventricular band or bundle of His to the ventricles. This is the normal mechanism of the heart beat. But, in various conditions of disease the impulse does not start in the normal place, but in other positions, and then the fibres of the auricle may contract irregularly with no sort of co-ordination; the muscular walls of the auricle are in a position of diastole, complete systole is never accomplished, the structure as a whole rests immobile, close observation of the muscle surface reveals extreme and incessant activity, rapid and minute twitching with an un-

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(*a*) Delivered at the Seamen's Hospital, Greenwich, June 25th, 1914.

dulatory movement are visible over the whole. This tissue mass has suffered functional fragmentation and a number of small areas give independent birth to new impulses. Consequently it may be said that the auricle is put out of its normal and proper action. Hence the ventricle, instead of receiving regular stimuli about 72 times in the minute, receives very numerous and irregular stimuli, so that the pulse beats are frequent and irregular, and in addition to that the ordinary venous pulse which is auricular in type ceases to show the pulsation of the auricle. To demonstrate auricular fibrillation one must make use of graphic methods, either Mackenzie's polygraph or some form of electrocardiograph.

Symptoms.—This is the form of cardiac lesion which often remains latent for a long time; it is frequently detected on a chance examination when no particular symptoms have been complained of. Only the other day I saw a man, æt. 22, who had been refused to be taken on by the London General Omnibus Company because of the condition of his heart. Sure enough there was a most obvious presystolic murmur with a reduplicated second sound in the pulmonary area; he had, however, never had any cardiac symptoms, although he had gone in freely for athletics, playing cricket, football, boxing and swimming. The most characteristic symptom of mitral stenosis is shortness of breath on exertion; with the possible exception of aortic regurgitation due to arterio-sclerosis this is the cardiac lesion which gives rise to the greatest amount of dyspnœa; other symptoms are swelling of the feet, insomnia, palpitation with sharp pains in the precordial region, a slight degree of cyanosis, particularly of the cheeks and ears, also a dry cough due to bronchial congestion.

Special features of mitral stenosis are *hæmoptysis*, due to the raised blood pressure in the pulmonary area, and so often leading to the mistaken diagnosis of phthisis, also epistaxis and hemiplegia, owing to the fragment of a clot from the dilated left auricle or a fresh vegetation being whipped off from the orifice of the valve and being imported into one of the cerebral arteries.

Turning to more general symptoms, women who suffer from mitral stenosis complain a good deal of cold hands and feet and show a decided sensitiveness to low temperatures, the skin is not infrequently bedewed with cold sweat; they often complain, too, of digestive troubles and scanty catamenia. Generally they are constipated, with urine diminished in amount and of a high specific gravity. They are very liable to attacks of bronchitis, which may run into chronic bronchial catarrh, and also acute pulmonary œdema on exertion. On suddenly assuming the erect posture, vertigo is a common symptom, or there may be a feeling of fulness and confusion in the head due to passive cerebral congestion, hence arise insomnia and disturbing dreams. The pulse tension is usually low, when high it is due to capillary resistance and to the energy of left ventricular contraction. The character of the pulse depends on the state of the myocardium of the auricles; when this is healthy the pulse is regular, when there is fibroid or fatty degeneration of it the pulse becomes irregular or even arrhythmic.

Prognosis.—This is certainly less favourable for mitral stenosis than for mitral regurgitation. No insurance company would accept a case known to suffer from mitral stenosis, and the fact that such cases are infrequently met with in men and women who are well past middle life points to a relatively early death. By some authorities the average length of life is set down at ten years, but in my experience this is too pessimistic. We have alluded above to the fact that mitral stenosis may be present for some years without any pronounced cardiac symptoms, and then they may arise quite suddenly, usually after some unwonted exertion, and the patient is never quite the same again afterwards. In the great majority of cases the heart recovers from the first breakdown and usually from many subsequent attacks. Frequently we meet with women between the ages of 17 and 30 complaining, perhaps, of headache, indigestion, or general malaise, and the physical examination discloses a presystolic thrill and murmur at the apex; such symptoms at this stage are probably not due to the cardiac lesion, they may be readily removed by some quite simple treatment, and years may elapse before the patient again appears with signs of a definitely broken compensation. Women, by reason of the greater tranquillity and sedentary character of their lives, are able to continue for a longer time than men unaffected by this lesion. As, however, the narrowing of the orifice becomes more pronounced, only a small volume of blood is ejected into the arterial system at each systole, the general nutrition becomes correspondingly poor, the complications in the lungs become more probable, the normal metabolic processes are interfered with and general nutrition becomes defective.

When once the compensation has broken down it is restored less easily than is the case with mitral regurgitation, because the narrowing of the mitral orifice causes an imperfect filling of the left ventricle, so that the heart itself obtains an insufficient supply of blood and thereby cardiac weakness is promoted. When mitral stenosis is established in late childhood it has a worse prognosis than if it first occurs in adult life, partly owing to the progressive tendency of the constriction of the orifice, which is more marked in early life, and partly owing to the fact that the stenosed orifice does not increase in size while the growth of the heart continues.

In considering the case of a young adult of either sex with a compensated mitral stenosis, the prognosis will depend on the nature of the work and the ease with which the patient can at once leave his occupation and lie up on the first premonitions of an impending breakdown; then again, the whole condition of his life, the house in which he lives and the climate must be considered. Still more important is it, in my opinion, to take fully into consideration the rheumatic history of the parents and collaterals, for the likelihood of a further attack of rheumatic fever will have a most unfavourable influence upon the prognosis.

In the case of women the question of pregnancy and childbirth often comes before us, and in many cases I think we may take a fairly favourable view; thus, if the cardiac lesion is well compensated, matrimony may be permitted; if there have been one or two previous breakdowns, if allowed at all, it must only be after giving full warning of possible dangers. Should the patient have reached the stage of pulmonary congestion with albuminuria, then marriage is clearly quite out of the question. As an instance of how well these patients may pass through pregnancy and childbirth: (1) I had a woman, æt. 24, who came to me at the hospital suffering from mitral stenosis and regurgitation. She had had rheumatic fever at the age of 12, and her mother had suffered from it four times; palpitation of the heart and dyspnœa were severe. She improved very much under treatment, and compensation was restored. I did not see her again till five years later, when she came to the hospital at my request, and I found that she had married three years previously and had given birth to a child which she had nursed for 13 months. The physical signs were unchanged, but she had no cardiac symptoms. (2) Another case was a woman, æt. 22, with mitral stenosis and regurgitation, who improved a good deal while an in-patient at the hospital for six weeks. She appeared again four years later, when she had been married 18 months, had a child seven months old, which she had nursed for two months; though short of breath, her general condition was distinctly better than when I had seen her four years previously.

A few months ago I had a letter from a doctor in Nova Scotia detailing the case of a woman who had mitral stenosis in early life, but passed successfully through 12 pregnancies and reached the age of 69 before there was a serious cardiac breakdown.

Hæmoptysis, pointing to engorgement of the pulmonary circulation and rupture of blood-vessels, is rather a serious symptom. Hemiplegia, due to thrombi, generally admits of a speedy recovery, which may be permanent.

Some help with regard to prognosis may be derived from the physical signs. It is important to note carefully the second sound at the apex; so long as the second sound is audible at and beyond the apex, there is little or no liability to the occurrence of symptoms, and no immediate danger of a cardiac breakdown; when, however, the second sound is no longer audible at the apex, though there may still be no symptoms under ordinary conditions of life, any slight extra exertion may provoke them. The disappearance of the presystolic murmur and the substitution for it of a mid-diastolic or early diastole murmur is an unfavourable sign, indicating as it does an increasing feebleness of the left auricle; the advent of the auricular fibrillation is a definitely unfavourable condititon, though it is fairly amenable to treatment, and a patient with it may live as much as ten years, yet the compensation of the heart is never completely restored. It is important to note the accentuation of the second sound in the pulmonary area, for, as it diminishes in intensity we get evidence of the failing of the right ventricle.

The cases of mitral stenosis associated with arterio-sclerosis have, of course, a much less favourable prognosis, because the lesion is necessarily progressive. The future, in fact, depends on the rapidity of the advance of the sclerotic process of the valves and heart muscle. In these cases the dyspnœa is particularly distressing, and they sometimes die suddenly from angina pectoris. Thrombosis is common in this form of mitral disease, whereas embolism is more characteristic of the endocarditic forms which we have been discussing, giving rise, if pulmonary, to infarcts and a localised pneumonia, while, if cerebral, causing hemiplegia. Cardiac arrhythmia, which is not so common in the pure forms of mitral stenosis, occurs frequently in these arterio-sclerotic cases, owing to the degeneration of the myocardium and the fact that the heart has to struggle against hypertension in the systemic as well as in the pulmonary circulation.

Treatment.—This does not differ materially from that of other forms of valvular lesion; it is always a question of estimating the strength of the heart for doing its daily work and considering how far this may be reduced. At first when the patient comes complaining of breathlessness on exertion, if complete rest is given for two or three weeks it may be quite possible to resume ordinary life again in a somewhat less active way. Later on, when there is a definite breakdown, the question of drug treatment arises. In many cases considerable benefit will be found to arise from ordinary tonic doses of iron and arsenic, if these are unsuccessful, small doses of digitalis may well be tried: it is in these cases that small doses of digitalis continued over a long time prove so very efficacious. When, however, the condition is one which is described as auricular fibrillation, of which we have spoken above, then is the time for large doses of digitalis—say, m.x. every four hours, of course, with the patient at rest in bed. The digitalis is here thought to act by protecting the ventricle against excessive stimulation from the auricle by inhibiting the conduction of impulses in the bundle of His. When there is much œdema of the legs it is difficult to improve on the well-known diuretic or Niemeyer's pill, which consists of :—

Pil. hydr., gr. j;
Scillæ, gr. j;
Digitalis, gr. j.,

which is most effective in removing the œdema and minor degrees of ascites. When this line of treatment fails, I have found most satisfaction from theobromine, gr. v. t.d.s., which is a powerful diuretic and also has a tonic effect upon the heart. In cases where the ascites or pleural effusion is at all considerable, tapping must, of course, be resorted to. In the cases in which the mitral stenosis is associated with arterio-sclerosis and, as is often the case with renal cirrhosis, then the line of treatment must be mainly dietetic, and consists in avoiding nitrogenous food and all uric acid producers, while employing drugs which lower the arterial tension, such as the iodides and nitrites. Digitalis, on the other hand, is usually unsuitable in this form of mitral stenosis.

NOTE.—*A Clinical Lecture by a well-known teacher appears in each number of this Journal. The lecture for next week will be by Sir Arbuthnot Lane, Bart., M.S., F.R.C.S., Senior Surgeon to Guy's Hospital, and to the Hospital for Sick Children. Subject: "Fractures."*

ORIGINAL PAPERS.

THE EMPLOYMENT OF HYPOPHYSARY OPOTHERAPY IN GYNÆCOLOGICAL PRACTICE: ITS IMMEDIATE RESULTS. (a)

By PROF. M. F. JAYLE.

[SPECIALLY REPORTED FOR THIS JOURNAL.]

THE relations between the ovarian gland and the other ductless glands have now been for many years the collective object of researches, of which the results, although they are still in large proportion without the limiting border of accurately definable precision, are nevertheless capable of translation into the language and applied practice of some positive realities. One method of studying those relations consists of the recurrence in clinical experimentation to the time-honoured methods of opotherapy.

(a) These researches were carried out in the gynæcological clinique of the Faculty (Prof. S. Pozzi), at the Hôpital Broca.

In this way I have recently been led to try the effects producible by the administration of pituitary gland to female patients affected with various utero-ovarian pathological troubles.

In carrying out these clinical investigations I had recourse to the hypophysary fluid prepared by the method adopted by Choay. The gland selected is the hypophysis of the ox, of which the mean total weight is 2.2 grammes; 1.8 for the anterior lobe, and 0.4 for the posterior. (b) The hypophysis is treated by desiccation *in vacuo*, which yields 0.5 gramme of powder for the whole organ, 0.4 for the anterior lobe, and 0.1 gramme for the posterior. This powder is used in the preparation of the solution to be injected. It is first freed from the presence of lipoids, after which it is treated with solvents which extract from it certain active substances of which the nature has not hitherto been precisely ascertained. The solution thus charged with the active substances is subjected to a process of concentration till a dry residue is obtained. This residue is then dissolved in an aqueous solution of sodium chloride of 0.7 per cent.; and then the latter is gradually heated to ebullition, so that the thermostabile constituents only are now left, and the noxious principles produced by microbic action have completely disappeared. The direct consequence of following out this mode of procedure is that the injected solution contains but a restricted proportion of the original constituents of the hypophysis. I have hitherto utilised only the solution prepared from the posterior lobe. Each ampulla contains 1 c.c. of this solution which corresponds to 0.05 gramme of the powdered posterior lobe of the hypophysis—that is to say, to one-half of that lobe.

The hypodermic injections were made beneath the skin of the posterior aspect of the thigh, or of the abdomen. They were repeated at average intervals of two days, and daily in some exceptional cases. The quantity administered was at first that contained in a single ampulla, but I have been led by experience to recommend commencing with a third or a half, with the object of minimising the slight, but quite clearly defined, indications of intolerance which supervene in certain patients, especially at the initial stage of the treatment. It has seemed, in the progress of my experience, that emaciated and intractable women bear somewhat large doses less well than do those of other types. Thus I have come to arrange a quadruple system of dosage (Nos. 1, 2, 3, 4), corresponding to the respective quantities of $\frac{1}{8}$, $\frac{1}{4}$, $\frac{1}{3}$ and $\frac{1}{2}$ of the posterior lobe of the hypophysis; and I recommend beginning the course of administration of the remedy with the No. 1 dosage and a then gradual increase till the No. 4 has been reached. In treating hæmorrhages, I practise daily injections; in other cases, I adopt a series of 10 injections, administered on alternate days, and the intervals between which are subsequently increased to four, five, or six days, according to the requirements indicated by the conditions of the individual case. The amount of dose can also be graduated in the course of treatment from No. 1 to No. 4.

The injections are either painful to a very slight degree or quite painless. In my series of more than 400 cases no local phenomenon worthy of recall was ever produced. The effects are immediately manifested. The patient blanches at once and retains the pallid tint for several hours. She usually experiences some colicky pains, and in a good many instances complains of headache during the first day and insomnia during the first night. Generally speaking, the injection produces a feeling of fatigue, and I accordingly advise patients to take complete rest on the day on which the injection is administered. For this reason, too, it is best to have it given in the patient's home.

The effects obtained have been: diminution and, fairly often, complete arrest of local discharges, whether red, yellow, or white; diminution, and fairly often, complete arrest of abdominal pains; diminution of constipation, of wandering — so-called rheumatic — pains of the limbs; suppression of menstrual clottings, while, with regard to the menstrual period itself, I have in most cases noted a diminution of the interval; exceptionally an increase, and occasionally a regularisation. I have treated by this procedure various patients suffering from chronic and apyretic gynæcological affections: metritis, uterine subinvolution with metrorrhagia, uterine sclerosis of the menopause period accompanied with metrorrhagia, chronic non-suppurative salpingitis, chronic ovaritis, uterine fibroma, inoperable epithelioma of the cervix accompanied with hæmorrhage. In order to estimate the result more accurately I have suppressed the use of all dressings, and frequently even the vaginal injections. The *immediate result* has proved satisfactory, and I do not hesitate to recommend this therapeutic procedure at the present date, while awaiting the revelations of the *remote* ones.

Thus hypophysary opotherapy seems to me to render distinct service in cases of young women affected with lesions of the ovaries, Fallopian tubes and peritoneum, which, while of comparatively slight nature, prove rebellious to ordinary treatment; also in those of women suffering from the metrorrhagia which accompanies the period of menopause, and in patients who are habitually tormented with attacks of recurring symptoms of pelvic congestion without any co-existent macroscopic lesions. It may also prove useful as the complement of all conservative operations, when the results obtained by the latter have not been completely satisfactory. It may probably succeed in replacing electrotherapy, radiotherapy, and radium-therapy in certain indications for therapeutic procedures which have recently been relegated to the influence of these agents.

The *modus operandi* seems a complex one, but we observe all the characteristic signs of vascular constriction. Nevertheless, it has appeared to me from the observation of certain facts that the ovary is itself influenced in its secretory function by the effects of administration of the substance of the hypophysis. The results of some observations which I have sketched here for the reader will enable him to render count of the *immediate effects* of hypophysary opotherapy. They are taken from the reports of the series of cases which I treated in the Hôpital Broca, in the service of my chief, Professor Pozzi, and of patients treated in my city practice. I have at present fifty cases actually under treatment, and the *immediate results* hitherto manifested have, on the whole, been decidedly favourable. Those reached in the series of ten cases here specially presented, and which have been taken at random from the general report, will enable him to estimate the effects of hypophysary opotherapy; which have usually been very favourable, and sometimes *nil* (as in obs. IX.).

Obs. I.—*Metritis, parametritis, double ovaritis and pelvi-peritonitis.*—The patient, æt. 23, was a nullipara. There was enormous hypertrophy of the cervix; the ovaritis was more marked on the left side. Ten hypodermic injections were given between January 12th and February 13th. Improvement of the menstrual disorder and relief from pain followed immediately, and the latter had completely disappeared after the sixth injection. The cervix was improved, but not quite cured; accordingly treatment with hot air was commenced. The improvement continued through March; an injection was given every sixth day, and at the end of the month the patient felt well. Menstruation had occurred twice since the beginning of the treatment; the flow was less abundant and not accompanied, as before, by a sense of fatigue.

(b) Choay, *Les Extraits opotherapiques.* Paris, 1911.

Obs. II. *Chronic metritis with ulceration of cervix. Double salpingo-ovaritis, more marked on left side* (volume of a large chestnut) *with perisalpingitis.*—The patient, æt. 28, had menstruated at 12, and had shown some symptoms of pulmonary tuberculosis during the past ten years. Had had miscarriages at 21 and 24. There was copious menstrual discharge, also metrorrhagia. Eleven hypodermic injections were administered between January 12 and February 13. The improvement was immediate. Metrorrhagia ceased completely after the third injection. After the fourth injection the menstrual period was ten days in advance (they had usually been five or six days in advance), but there was no formation of clots—which had previously been always in evidence and very voluminous.

Obs. III.—*Post-abortum hæmorrhage.* — The patient, æt. 26, had had an abortion towards the end of December—after a month's pregnancy. Loss of blood continued from January 15 to February 16; during the last week of that period clots of the size of the closed fist had always been forming. From February 16 to 28 six hypodermic injections were administered. There was immediate amelioration of the hæmorrhage, followed by its complete disappearance.

Obs. IV.—*Pelvi-peritonitis without any extensive lesions.*—Nullipara, æt. 24, was neurotic and suffered from very severe pains, especially on the right side (diagnosis of appendicitis, of salpingitis, of abscess). Between January 27 and March 14 eleven hypodermic injections were administered. Marked amelioration of pain. Total disappearance of white discharge (which had not been very abundant). The last menstrual period has been greatly lessened after ten injections.

Obs. V.—*Metritis, double ovaritis, pelvic varicocele, ptosis.*—Nullipara, æt. 27. Menstrual period seven or eight days in advance. Loss of weight during past year of 20 kilos. Had sought advice on account of the pain and discharge, both red and white, which had continued during the previous seven months, and went on increasing in quantity. Seven hypodermic injections were administered from February 6 to March 11. The pains disappeared completely; the vaginal discharges became limited to the menses. These appeared a week beforehand, and much more abundant (little more was lost during previous three months). Bowels more regular. At close of menstrual period some white and yellow discharge reappeared. At the end of March improvement continued, with the condition of continuing the treatment.

Obs. VI.—*Metrorrhagia of three months' standing.*—Patient, æt. 25, who had menstruated at 15, and had borne three children. For the previous three months the red discharge had necessitated the use of a fresh napkin daily. No abdominal pain. Headache and renal pains during past ten days. Half-ampulla dose injected daily for seven days. Hæmorrhage almost quite disappeared after the first injection, and definitely after the third. The headache and renal pains disappeared very rapidly.

Obs. VII.—*Double chronic post-puerperal salpingo-ovaritis.*—Patient a nullipara, æt. 19. An abortion of four years previous date had been the starting-point of her illness. Menstruation had commenced at 13 years; it was now a little irregular, and accompanied by clotting. She had sought advice on account of very acute abdominal and lumbar pains, and very copious yellow discharge. From February 15 to February 25 five hypodermic injections were administered, which produced relief of the pains and discharge. The menstrual flow then appeared at one date, less abundant and less painful, of deeper red colour, and with less clotting. After menstruation the patient felt well; then, on placing a longer interval between the injections, the pains tend to regain their strength, though with diminished intensity. March 26th: improvement continues, but only on condition of continuing the treatment.

Obs. VIII. — *Parametritis. Pelvi-peritonitis. Fixation of uterus.*—Nullipara, æt. 26. Miscarriage at four months, in 1910. Menstruation at 13. Since miscarriage menstruation had been irregular and painful. Administration of fourteen hypodermic injections from January 26th to March 10th. Diminution of discharge and amelioration of pain after fifth injection. Menses appeared after tenth injection, and much more healthy than any of those of the preceding period. Pains disappeared after thirteenth injection. Menses on March 16th, which lasted four days (instead of five or six) and were of small quantity, unaccompanied with pain, and had appeared four days in advance. At the end of March all went well, on condition of repeating the injection every third day.

Obs. IX.—*Cystic salpingo-ovaritis, with chronic parametritis and pelvi-peritonitis. Hyperplasia of hirsute system.*—Nullipara, æt. 22. From January 17th to February 10th seven hypodermic injections were given, without any satisfactory change in way of improvement.

Obs. X.—*Inoperable epithelioma of cervix.*—Patient, æt. 48, had had red discharge during past year, accompanied during last three months with formation of clots. Very weak, stooped in walking, unable to maintain erect posture in standing, on account of severe pain in right side. The result, noted on March 26th, after ten hypodermic injections, was as follows:—Complete cessation of loss of blood; some yellow discharge only. Patient holds herself erect, walks with comfort and feels stronger. The pain in right side has greatly diminished. Urine more healthy. Constipation continues. Quite naturally there is no local amelioration.

THE PRESENT POSITION OF OPHTHALMOLOGY IN SCHOOL HYGIENE. (a)

By ROBT. A. ASKINS, M.A., M.D.Dub., D.P.H. Cantab.

Medical Officer, Lancashire Education Committee.

Ophthalmology is one of the largest branches of school hygiene, and both from the point of view of the teacher and of the child it is one of the most important, and yet it is a branch which is admittedly on a most unsatisfactory footing. One of the chief reasons for this is that eye work differs from other branches of school hygiene in that most doctors have not had the highly specialised training necessary for ophthalmic work, and it is not possible for the ordinary elementary school child to employ the specialist; on the other hand, the country is flooded with opticians who cannot carry out the examination essential for prescribing glasses for children.

(a) Paper read at the Annual Meeting of the Royal Sanitary Institute, July, 1914.

In our schools at present there are numbers of children wearing wrong glasses. There is a further crying demand for improved methods in eye work for such problems as that which the large number of cases of squint present, a deformity which involves blindness in one eye, apart from its ugliness. In most places the decision as to whether a child needs glasses or not depends upon its failure or otherwise to read a given line on Snellen's test types, which is a very unsatisfactory and, indeed, unscientific method. Snellen's types are at best a very rough and often unreliable guide in the case of children, and they cannot be used for a very large and important section, viz., children who are unable to read.

At the opposite pole to illiterates, there are the children who read below our arbitrary line on Snellen's types. There are a number of children who read 6/9 and even 6/6 and who yet require glasses. Assuming, however, that the child's vision is defective to a definite extent as estimated by Snellen's types, it is then absolutely necessary that the school doctor should know what is the cause of the defective vision, and for this reason alone, viz., that Snellen's types give us no idea as to which of the widely differing causes of defective vision is present, the recommendation of children for glasses on an examination by Snellen's types alone should be condemned. In the first place there are many cases of defective vision which are not due to refraction errors at all. For instance, the child may have a temporary spastic condition of the ciliary muscle, which may simply require a short rest to set right. I have known of many cases where such children have been told they require glasses. One case went twice a ten-hour journey there and back to an eye hospital to be informed of the fact. There are again cases of fundus conditions, small opacities, etc., which are brought to light by an ophthalmoscopic examination.

By far the most important point, however, is that the school doctor should know in the case of a refraction error whether the case is one of hypermetropia or myopia. I intend later to make a few remarks as to these conditions, so widely differing in ætiology, treatment, and prognosis, that the entire consideration of the case depends on which is present, and will content myself here with stating that it is absolutely necessary for the doctor's examination to disclose this fact.

A third reason why ophthalmoscopic work should be done in schools is the presence of a very large number of wrong glasses in school. There are a number of children wearing actually harmful glasses, *e.g.*, hypermetropic children wearing myopic glasses. Almost any eye will get a temporary increase in the sharpness of definition of objects by putting up a low minus glass, and this is the common resort of an unscrupulous shopman who cannot find any glass which will improve the child's vision. The ultimate result of such treatment is disastrous. There is in addition a still larger number of children wearing glasses so bad that they are practically useless from a point of correcting the refraction error.

I need scarcely say that no doctor can tell whether a child's glasses are correct without an ophthalmoscopic examination. It is asking the doctor to say whether the bottle and the dosage are correct before he knows what is the matter with the patient. I mention it, however, because the point is a serious one, and because there are very erroneous ideas on the subject among medical men. Assuming, then, that the present position of eye work in schools is unsatisfactory, what can be done to remedy this ?

A proposal was made recently by some of the Staff of the Royal London Ophthalmic Hospital, where a large number of eye cases from the schools are treated by arrangement with the London County Council. They suggested that all children who do not read 6/6 in either eye as well as J. 1 should be sent to the hospital or treatment centre for examination. This would, perhaps, be the ideal ; but, as is sometimes the way with ideals, it is doubtful whether it would be possible to get so many children, a large number of whom do not require glasses, up to the hospital. Those who have experienced the difficulty of getting even cases we know to be serious to the hospitals will, I think, agree with me in this.

The correct plan, I think, is for the school doctor to carry out an ophthalmoscopic examination of eye cases in the school itself. With one exception, all difficulties are thus got rid of at a single stroke. This one difficulty is that the school doctor must be an experienced ophthalmologist, and really good work will not be done in this important branch of school hygiene, until all school doctors are trained ophthalmologists. The necessity for this has so often been emphasised elsewhere that I will not comment on it further here.

I come now to a point I put aside previously, a point on which I wish to lay emphasis. It is the necessity for the school doctor, having decided that the child's eyesight is defective, knowing which of the causes of defective vision is present in a particular case.

Firstly in reference to myopia. I am quite aware that there are different views held on this point, but I think that the majority on one side is so great that we may assume that all cases of myopia should be fully corrected. In order to do this all cases of defective vision should be diagnosed by the ophthalmoscope. Further, as myopia, even of low degree, tends to increase in very many cases between the ages of, say, nine and fourteen, all such cases should be periodically examined with the ophthalmoscope in order to keep the strength of the glasses up to the proper level.

I would like to draw special attention to hypermetropia. I have felt convinced for years that in school work we are needlessly, nay, harmfully submitting large numbers of cases of low hypermetropia to the unpleasant burden of wearing glasses. I am well aware that I am here uttering what many will regard as heresy. It may be mentioned that in the estimate given by Dorrell 77 per cent. of all people are reckoned to have such an error. As, however, the point is one which may meet with opposition, I will invoke the testimony of an opthalmologist of the highest standing whose name is familiar to all of you. I refer to Mr. R. W. Doyne, from whose work I quote freely in what I am about to say. He expresses the point in somewhat striking terms in stating that the word "astigmatism" has produced in medical men of the present day a mental condition resembling the condition that word represents. The grounds upon which glasses are prescribed for low hypermetropic errors, errors which probably 90 per cent. of the population possesses, is chiefly that they are necessary to remove what is usually included under the somewhat vague term "eyestrain." Now eyestrain is a very common thing to meet with in schools, and is more common in childhood than at any other period of life. Doyne divides eyestrain into two fairly distinct varieties, which I will consider separately. The first is due chiefly to peripheral conditions, *i.e.*, in the eye itself. The second is chiefly due to central conditions, *i.e.*, in the brain.

The most prominent feature of the first is pain and discomfort in the eye itself, especially at the back of the eye. This may be due firstly to a high degree of hypermetropic error, which is definitely beyond the power of the ciliary muscle to counteract. In these cases glasses should undoubtedly be prescribed, whether for constant use or not depending upon the particular case in hand. Secondly, the cause of the peripheral eyestrain may be hypermetropia of low degree, and this is one of the classes of school children where glasses are often not only unnecessarily, but even wrongfully, prescribed. It is, to quote Mr. Doyne, as if a person has to walk many miles daily, and you put him to bed to develop his legs instead of encouraging careful exercise to increase his muscular vigour. Many such cases put into glasses are simply artificially manufactured invalids. Such cases require careful exercise of the eye and not glasses (except in certain instances). The child has gone a little too fast and has exhausted his power temporarily. He requires to develop his ciliary muscles more carefully, by which means he can be put in a condition to do his work perfectly satisfactorily and be spared the infliction of wearing glasses. The latter course may simply mean prolonging or even rendering permanent the weakness. In cases of mild cardiac disease one does not recommend rest, but encourages a compensatory hypertrophy by means of exercises.

The second category of eyestrain to which I wish to refer is very common in school life, namely, the one due to central conditions, and chiefly to fatigue on the fusion centre. I can only go into the subject briefly, and must refer those who are interested to Mr. Doyne's paper, where the matter is fully gone into. This form of eyestrain is chiefly characterised by headaches, often described as sick headaches, and confined chiefly to the frontal area. It is due not to fatigue of the ciliary muscles, but to exhaustion of the fusion centre of the brain. It is fatigue of this centre, or rather of the interaction of the fusion centre of the brain with lower centres controlling the ciliary muscles, that is the cause of this variety of eyestrain in children. It is not the ciliary muscle that is at fault. That this is the case is exemplified by a fact which those of you who have done much refraction work among children are familiar with, namely, the comparative rarity with which eyestrain is found in squinters, even where there is a considerable degree of hypermetropia, and also in one-eyed children. The reason for this is that although the ciliary muscle has just as much work to do, the fusion centre is no longer attempting to form binocular vision.

The same thing is exemplified by the extreme frequency of eyestrain in cases of anisometropia, the strain being due not to the ciliary muscle, but to exhaustion of the fusion centre of the brain which is attempting to fuse two very different images. Similarly in myopia, ocular headaches are much less common because no effort of the ciliary muscle can neutralise the myopia, and consequently the fusion centre does not exhaust itself in attempting to obtain a clear image, as it does in the case of hypermetropia. The treatment of most of these cases is suitable rest and suitable work, not glasses. At present the child is simply being, in a literal sense, overworked. I would like to anticipate an objection which will be raised, namely, that the error may cause the child to approximate its eyes to its work and so, owing to excessive convergence, possibly be a predisposing cause of myopia. If the child really cannot read comfortably without closely approaching its eyes to its work, then, by all means, put it into glasses. This will, however, only comparatively rarely be found to be the case in the class I am speaking of. I may mention that a much more fertile source of too close approximation is habit acquired in infants' schools by the child doing work it is not fit to do at that age.

In summing up I would urge:—1. That the school doctor must be a trained ophthalmologist. Till this is the case we can have little hope of good eye work being done in schools.

2. That all cases of myopia should be picked out and receive a much more careful supervision than is the case at present. The ophthalmologist will discover more cases of myopia in the infant school than he will anticipate. All cases of myopia in the upper school should be known, got into glasses, and kept under very careful supervision, especially with the view to levelling up the glasses.

3. The recognition and careful consideration of cases of hypermetropia, and especially before ordering glasses for low hypermetropia, the estimation of the degree of the defect being a primary consideration. Secondly, the substitution of the principle of encouraging the development of the ciliary muscle rather than taking its work from it. No hard and fast rule can, of course, be laid down. Every case must be dealt with on its own merits, including the physical condition of the child, the symptoms produced, and the degree of hypermetropia.

4. As to squint. This problem can never be dealt with satisfactorily until it is, to some extent, at any rate, taken over by the school doctor. Many cases require supervision extending over long periods, and treatment that can only be carried out in school, *e.g.*, orthoptic treatment. Till this is done thousands of eyes will be let go irretrievably blind.

In conclusion, it is no want of faith in the value of glasses that has prompted these remarks. It is, rather, faith in the enormous value of glasses which makes me urge a more scientific employment of their use, and the hope of drawing some attention to the great, and at present sadly neglected, field of eye work in school life.

SOME CLINICAL POINTS ON DIET IN THE TREATMENT OF PULMONARY TUBERCULOSIS. (a)

By C. MUTHU, M.D.,

Chief Physician, Mendip Hills Sanatorium, Wells, Somerset; Consulting Physician to Lady Margaret Hospital.

Tuberculosis is chiefly associated with disordered nutrition and disturbed metabolism brought about by unhealthy conditions of civilisation. The digestive organs seem to be the first to suffer from civilised life. When the sanatorium treatment was inaugurated in this country some 15 or 16 years ago the treatment consisted in fresh air and hyper-alimentation. Now a great change has come over for the better in this respect. Generally speaking, consumptive patients at the early and curable stage do not require more food than others. As a rule the open-air treatment together with the regular life led in a sanatorium creates a healthy appetite which requires no compulsion or encouragement. It is impossible to formulate a standard diet suitable to all tuberculous patients, as they differ in age, sex, temperament, height, weight, etc. Diet constituted upon scientific calculation as efficient and satisfactory does not always work out correctly in everyday practice. Man is a living organism, not a machine that can produce a definite known amount of protein and carbo-hydrate from a given amount of food. The great secret of dieting sanatorium patients lies in using every natural means to create a healthy appetite and if possible avoid all artificial aid in the way of medicine or patent or concentrated foods. I believe in the three meal system. The stomach is the greatest friend of the consumptive. The gastric organs should have four hours' rest between meals and no food should be given between breakfast, dinner and supper, except a cup of tea about 4 o'clock. The more rest given to the digestive organs the better and more efficiently will they serve the patient. Over-feeding is both unscientific and injurious. Forced feeding is not necessary in the earlier stages of the disease and is not of much use in the late stages, when the stomach is too enfeebled to digest any food. Many Continental physicians have spoken against the evil effects of over-feeding. (*a*) In my own experience over-feeding induces dyspepsia, hæmoptysis, dilatation of stomach and intestinal disturbances.

(a) Abstract of Paper read at the Annual Meeting of the British Medical Association, Aberdeen, July 31st, 1914.

Contrary to ordinary experience I find that an excessive meat diet feeds the disease, induces intestinal auto-intoxication, keeps up the temperature and retards the arrest of tuberculosis. A furred tongue, bad taste in the mouth, constipation, headache with slight pyrexia and sleeplessness are symptoms that the patient is having more food than he can digest, and the diet should be cut short. Meat is really not necessary in the treatment of consumption, as I have seen Europeans, Indians and Arabs get cured of tuberculosis on vegetarian and fruit diet. Especially patients with weak digestions should not be over-fed. If after a few days' trial ordinary meals produce feelings of discomfort food should be cut short and the stomach given rest. If dyspepsia or anorexia still continues it is a good plan to try two meals a day. I have found over and over again that patients who cannot eat are all the better for abstaining from food now and then as their appetite returns after awhile and they are able to relish their food after a fast. In fact, fasting is a leaf taken from nature's book. It is surprising how little women patients eat as compared with men and still gain weight. The secret of successful diet depends more upon attention to economy in diet than by giving way to extravagance. We do not sterilise milk as we used to in the old sanatorium days, as we find our patients thrive better on fresh milk. I am convinced that milk to be nourishing and digestive should not be boiled or sterilised but given in its raw fresh state. I entirely agree with Dr. Vincent, of Manchester, when he said that he could not establish any relation between the consumption of raw milk and the incidence of tuberculosis.

Patients do better without alcohol. The gain of weight is not always an index to the patient's improvement in the condition of the lung. I have seen active mischief continue in fat patients and arrest of disease take place in those with slender frames. The gain of weight does not depend upon any particular time of the year. Laugh and grow fat is a scientific truth. A man with a placid temperament gets more nourishment out of a small amount of food than one with an irritable frame of mind. Behind food lies the power of digestion and assimilation, and behind these again lie the condition of the mind. Worry and anxiety, mental strain and stress interfere with the physiological functions of the stomach and healthy metabolism. Therefore, the sanatorium physician in arranging the diet of the patient should take into consideration the mental condition and temperament, the habits of life and idiosyncrasies, and only by discrimination and individual attention and placing the patient in a happy and cheerful frame of mind can he successfully wage war against tuberculosis.

OPERATING THEATRES.

ST. THOMAS'S HOSPITAL.

A Case of Carcinoma of Thyroid.—Under the care of Mr. Edred M. Corner.—Operating on a case of simple tumour of the thyroid, Mr. Corner said that there were a few details in operating on these cases. First, the skin incision must be adequately large and after the example of the "collar" incision advocated by Professor Kocher, of Berne. Secondly, there must be no hæmorrhage, all vessels being clamped in two places and divided between. Thirdly, the tumour must be "shelled out" as closely to the capsule as possible so as to avoid all injury to the recurrent laryngeal nerve. An injury, such as division, of one recurrent laryngeal nerve would not be noticed at the time or during the patient's convalescence. Indeed, the lesion may escape notice until the first sore throat the patient catches after the operation. Then the voice is hoarse and the lesion discovered. There exists no anatomical landmark for this nerve, and it only escapes injury by the surgeon's keeping close to the tumour or leaving the posterior part of the lobe of the thyroid. Hence Mr. Corner believes that many more are cut than is at present recognised. Fourthly, these wounds should be sewn up and not drained; though a big cavity is better drained for 24 hours. Most tumours like this are adenomata, often in part cystic. But it is no uncommon event for the pathologist to find in them carcinomatous change. The prognosis is good in such cases, though in general carcinomata of the thyroid are of bad prognosis. In this connection, he mentioned the case of a woman of about 56 years of age at the time of her operation, who was admitted about six years ago with carcinoma of the thyroid. He excised the whole thyroid, but found great difficulty in removing the carcinoma adherent to her trachea. Microscopically the growth was a carcinoma of the thyroid. Within a year the growth returned where it was adherent to the trachea and picked out first one and later the other recurrent laryngeal nerve. When both of these nerves were paralysed there was bilateral abductor paralysis, and it was necessary for her to wear a tracheotomy tube. In spite of the daily use of thyroid extract the poor woman's health got worse and worse. Kind people got her into a Home for the Dying. Mr. Corner said he had it on good authority that she is the only person who has walked out of that Home! With the nursing, feeding, and care the woman got slowly better and

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(*a*) Professor Labbe, Dr. Mousseaux, Professor Robin, in The Medical Press and Circular, Sept. 30th, 1908.

better, till finally it became abundantly clear that she was *not* going to die. What could the Home do but discharge her?

From that day to this the woman has been coming up regularly to get thyroid extract and new tracheotomy tubes. There is no palpable growth. The vocal cords are still adducted, leaving only a slit between them. Consequently there is no sign of her being able to do without her tracheotomy tube. But her health is excellent. This case is worthy of record by itself, but so long as the woman's health is so good there is no hurry. In fact, the longer the time which elapses since her operation, the more valuable the record will be.

It should be added that the sections of the original growth have been examined and re-examined by different authorities to make sure that no mistake had been made and the growth really was a carcinoma. This they confirm.

CORRESPONDENCE.

FROM OUR SPECIAL CORRESPONDENTS ABROAD.

UNITED STATES OF AMERICA.

New York, Aug. 12th, 1914.

AMERICAN LEGISLATION TO MINIMISE ILLICIT OPIUM TAKING.

(Continued from our last issue.)

THE first step in this was to exclude the importation of smoking opium by the Act of February 9th, 1909. But this law has no effect upon the excessive importations of medicinal opium, nor does it prevent traffic between the States of the Union. As a matter of fact, opium imported legally is lost sight of by the authorities as soon as it passes the Customs House. And as there is no prohibition against manufacturing smoking opium, this matter is left to the individual States, only a minority of which forbid this manufacture; and even in them the law is not always effective. This could be easily done through a prohibitive internal revenue tax of, say, a thousand dollars a pound on all smoking opium manufactured. There is mooted such an amendment to an old act of 1890.

The control of interstate traffic is, however, a much more difficult matter, for each State is autonomous, under the constitution of the Union, except in such matters as it has specifically excepted for delegation to the United States Congress. As the States are very jealous of the encroachments of Federal power, which have been attempted and failed in much more important matters than the regulation of the opium traffic, it appears as if one must wait for all the States to pass laws restricting the improper dealing in opium before that traffic can be properly controlled. If this is the case, we may look forward to such a scandal as has been presented by the laws for regulating divorce and for the licensing of joint stock companies, where a single State, for the sake of the accruing fees, has connived at and licensed grossly immoral situations in order that its treasury may be enriched by those to whom it panders on account of the fact that other States do not conventionalise polite robbery or genteel adultery. It is only by a law to regulate the inter-state traffic in all forms of opium that some such procedure could be prevented for a long time.

Since the Act of 1909, little smuggling has been attempted, except at Pacific ports and along the Mexican border. The efficacy of the Act has been greatly augmented by the action of the Canadian Government, which, since July, 1908, has prohibited both the manufacture and importation of smoking opium, which was formerly so extensively smuggled from across the Canadian border. The success of the Act is largely due to the provision that possession of the drug shall be sufficient evidence to authorise conviction, unless possession can be explained to the jury's satisfaction.

The State of California has already modified its laws for controlling illicit dealing in habit-forming drugs (April 21st, 1909) By this Act the sale of medicinal opium is 17 per cent. less than before, of morphine 57 per cent., of cocaine 40 per cent., and the use of smoking opium has been reduced to a minimum, so much so that its price has risen from $16 to $80. Another effect is that immigration from Asia has decreased, and many Chinese are returning home, as they are unable to obtain the opium to satisfy their cravings. Besides, many addicts are entering the asylums and sanatoria to attempt to cure this craving. The Pharmacy Board reported to the Governor their belief that opium dens are a thing of the past, thanks to the provision which constitutes the possession of narcotics a crime.

COCAINE.

It is estimated by Dr. Hamilton Wright, one of the United States Opium Commissioners, that at most 20,000 oz. of cocaine are required for surgical purposes in the United States. There are manufactured at least 150,000 oz. This is mainly consumed without medical sanction by habitual users who seeks its narcotic effect. The drug is the most pernicious one used in the Western world, as it drives its consumers to a life of crime which does not hesitate at murder. The negroes of the South have become very fond of it, and it is distributed to them by unscrupulous white dealers, generally through relays of middlemen who sell it in small quantities, very often to other men, who sell it to the consumers in still smaller quantities. It is very difficult to convict any of the chain; and the profits are enormous, as it can be bought for about $2.50 an oz., and is generally sold in one or two grain packages for a quarter of a dollar each—*i.e.*, a profit of 4,800 per cent. Whisky is often charged with it and sold in the sheebeens of the South. It is claimed that contractors deliberately give it to ignorant negro workmen in order to incite them to furious energy for work. It is claimed, too, that rape by negroes, for which so many have been lynched, is often contributed to by intoxication with cocaine. Its use to corrupt young girls to prostitution is alleged; and there is no doubt that, unlike opium, its use is penetrating the Army and Navy, and even to the educated element of the population.

TARIFF LAWS.

The new Tariff Act of February, 1909, imposes the following:—

Crude opium, not adulterated, with at least 9 per cent of morphia, $1.50 per pound.

When dried or otherwise prepared, $2 per pound.

Morphia, or other alkaloids of opium and their preparations, $1.50 per oz.

Cocaine or its derivitives, $1.50 per oz.

Coca leaves, 5 cents per pound.

Liquid preparations of opium, 40 per cent., ad valorum.

FEDERAL LAWS REGARDING COCAINE.

By an Act of March 4th, 1909, the Postmaster-General has power to prevent passage through the mail of cocaine and other dangerous drugs. There is a fine of $1,000 dollars, or imprisonment for not more than two years, or both, for each offence. The American manufacturers of cocaine asked Congress to place upon it a prohibitory duty, believing that illicit dealers could thus be stopped, for the home manufacturers declare their willingness to account for their sales. It is owing to their representations that cocaine was among the substances named in the recent Tariff Act.

But these measures are insufficient so long as druggists are permitted to sell deadly drugs to all and sundry without a physician's prescription. Even children are permitted to buy laudanum in some States. Unscrupulous druggists or physicians may in this way implant the drug habit in hundreds of people. Moreover, there is nothing to prevent anyone from pretending to a manufacturer in another State that he desires a narcotic for legitimate sale in his own State, where he could not obtain it on account of not being licensed. Only by Federal control of the interstate commerce in narcotics is it possible to reach illicit dealers of this kind.

(To be concluded in our next.)

FROM OUR SPECIAL CORRESPONDENTS AT HOME.

SCOTLAND.

GLASGOW.

Sir Donald Macalister in Germany.

Sir Donald Macalister, who has been undergoing the cure at Bad Ems, was, with Lady Macalister and Miss Macalister, among the foreigners who were turned out of that place at very short notice. They were sent under military and police protection to Nassau, and thence to Limburg and Frankfurt. At Frankfurt, Principal Macalister, as a Doctor of Medicine and "Universitäts-Rektor," was placed in charge of a party of seven, consisting of invalid English ladies and their maids, who had been patients at Ems. He received from the authorities a pass permitting them to travel by way of Holland to England. All luggage had to be left behind. The party was forwarded slowly from point to point by military train, as opportunity offered, by way of Coblentz and Cologne. Everywhere military and civil officials, private soldiers and private citizens showed the party the utmost consideration and kindness, and apart from the inevitable hardships of a state of war no incident that could even be described as unpleasant took place. The Principal was indebted to some generous Germans, previously unknown to him, for advances of money, without which he could not have proceeded on his journey. From Cologne the party, with a large number of English and American fugitives, was sent down the Rhine by Dutch steamer to Rotterdam, whence they proceeded to Flushing by train and crossed to Folkestone. They had no news of events at home from July 27th until they reached Rotterdam on August 5th.

Special Graduation for the Army.

A special final examination in medicine has taken place at Glasgow University of candidates who had completed their course of study and desired to volunteer for active service. It concluded on Saturday, 15th inst., and the 22 candidates assembled about five o'clock on the same day to hear the result. Nineteen, it was announced, had passed. These were immediately marshalled in the Senate Room, seven of them wearing khaki uniform beneath their academic gowns. The degrees of M.B. and Ch.B. were conferred on them, the Vice-Chancellor (Sir Donald Macalister) presiding.

Radium for Glasgow.

The committee some time ago appointed to secure a central supply of radium for Glasgow and the West of Scotland, have received subscriptions amounting to over £7,300, and the Bellahouston Trustees have promised a grant of £500 per annum for three years to secure the expense of custody and administration and afford a proper trial for the scheme, provided the future progress, in the Trustees' opinion, justifies the continuation of the grant. Arrangements have been made for the purchase of 600 milligrammes of radium, which will be ample for the committee's requirements in the meantime, and the University authorities have placed a room in the University at the disposal of the Committee. This room is in course of being fitted up as a radiometric laboratory under the supervision of Professor Fredk. Soddy, F.R.S., and on his recommendation a very capable physical chemist has been appointed. Arrangements are in course of being completed with certain hospitals in the city for the treatment of patients by radium.

War Items.

Professor Sir William Macewen is among those who have been appointed consultants by the Medical Department of the Royal Navy, and who in most instances have been detailed for special duties. Among the silly rumours recently circulated in Glasgow was one which was being spread by a man apparently pretending to be one of the doctors of Stobhill Hospital, Glasgow, to the effect that some Scots Greys were lying wounded in that hospital.

BELFAST.

Medical Arrangements in Belfast in Connection with the War.

The Corporation Committee of Management of Hospitals and Dispensaries of the City of Belfast has decided to offer to place at the disposal of the military authorities for hospital purposes such accommodation as may be available at the Albert Bridge Road Institute, and the Cemeteries and Parks Committee have placed at the disposal of the authorities the Exhibition Hall, and have arranged that this could be made available for hospital purposes if necessary. It is also suggested that the latter Committee, associated with the Public Health Committee, might in addition arrange for the provision of volunteer medical and nursing staffs if such be required.

Royal Victoria Hospital.

The Board of Management of the Royal Victoria Hospital has sent the following telegram to the War Office: "The Royal Victoria Hospital, Belfast, offers fifty beds at once for wounded sailors or soldiers, and a further fifty beds on twenty-four hours' notice." Similar arrangements are being made throughout the province, as in Downpatrick Infirmary and in hospitals in Portrush, Coleraine, and other places. Some of the hospitals in the province of Ulster which had been intended for the use of the Ulster Volunteer Force are temporarily placed at the disposal of the military authorities.

Samaritan Hospital for Women, Belfast.

The General Committee of the above hospital have passed the following resolution:—"That owing to a number of the nursing staff having been requisitioned by the military authorities, and the practical impossibility of obtaining fully qualified nurses to carry on the work, the Committee feel reluctantly compelled to close the hospital for the present."

LETTERS TO THE EDITOR.

[We do not hold ourselves responsible for the opinions expressed by our Correspondents.]

INFANT MORTALITY.

To the Editor of The Medical Press and Circular.

Sir,—The Executive Committee of the Associations of Infant Consultations and Schools for Mothers asks the co-operation of the Press to point out to all those who have the charge of young infants that many deaths and much illness may be prevented by the observation of a few quite simple principles of mother-craft. Of these principles they cite the following as the most important:—

1. To persevere with natural feeding up to the end of the ninth month, or even longer, even though the mother is compelled to go out to work. Employers of female labour are earnestly requested to give nursing mothers opportunities for feeding their babies.

2. That in those cases in which such opportunities are impossible weaning is by no means necessary. A supplementary feeding of cow's milk will not disagree with the infant and may save the infant's life.

3. That the chief causes of illness among nursed and other babies is irregular and too frequent feeding by day as well as by night; intervals by day should not be less than three hours, and at night a long interval of some six-eight hours should always be provided.

4. Expectant mothers should also seek advice as to their own health, either by consulting their doctors or by attending at schools for mothers.

5. That stimulants are not only unnecessary, but are harmful both to nursing and expectant mothers.

To me as the head of a very large mothers' meeting, where discussion of this question has for many years been kept to the front, it is annoying to see the 4th and 5th clauses without any insistence upon the need for mothers to refrain from dosing themselves or their infants, save if they be sufficiently experienced, with any drug or medicine except some simple laxative like castor oil, and never to do even this without full confidence that at any rate she is doing no harm. Infants' "heal-alls" are advertised in every cheap paper; their sale must be enormous; they are to be found in the majority of poor homes. They help to kill and directly kill a vast number of babies yearly. This ought to be explained to mothers, and they should be implored to send for the doctor before using for themselves or babies any quack remedies. It is easy to explain the harm they do without naming one in particular and incurring the threat of an action for libel, although it has been proved that few of their owners dare try to vindicate themselves in court. The mothers can be made to understand that the baby's frequent show of pain is mostly due to the load of indigestible food it carries in its belly, and the proper treatment is proper feeding, after clearing out the load from the bowels, and they can be made to understand that when anodyne quack medicines are given the pain may be put an end to for a time, but the loaded bowels continue, and the disorder advances towards death. The infamous wretches who live on quackery, unhappily at present not amenable to the law, now hire clever scribes to indite their lying statements which entrap their simple victims; and the newspapers that set themselves up as guardians of the people put them in for paltry gain in the guise of editorial matter, knowing that thus they are participating in crime. I notice how frequently you refer to this fact. I agree with you that it forms one of the biggest scandals of the day, especially as the great bulk of leading papers set the example.

I am, sir, yours truly,
A Doctor's Wife.

Manchester

FORCIBLE FEEDING.

To the Editor of The Medical Press and Circular.

Sir,—Dr. Clement Sers says "forcible feeding" is a "medico-legal question," that is to say, it is a subject having both a medical and a legal aspect. Let us, therefore, look at it from these two points of view.

(*a*) *Medical Aspect.*—Forcible feeding is certainly not employed, as Dr. Sers asserts it is, to keep militant, hunger-striking Suffragists alive, because if it were then all such prisoners, including Mrs. Pankhurst, would be forcibly fed.

In fact some prisoners are fed and others are not, by favour of the authorities. Of course, Dr. Sers possibly forgets that the Home Office has long ago given up the miserable farce of calling forcible feeding "medical treatment," and that Mr. McKenna in the House of Commons even said it was a "most objectionable practice."

Clearly, then, Dr. Sers must entirely alter his view of forcible feeding, and he will possibly agree that, as was indicated by the Home Secretary in the House of Commons, it is really a punitive procedure or in plain English a form of torture. That this is so is also shown by the fact that, though medical treatment (real) is given in all prisons, two prisons have been detailed for this particular purpose—namely, Holloway for England and Perth for Scotland. This leads naturally to the other aspect of the matter which we may now glance at.

(*b*) *Legal Aspect.*—Forcible feeding, though not "medical treatment," as we have just seen, is nevertheless inflicted on prisoners by prison doctors. Doubtless Dr. Sers would meet this point by saying that as prison doctors are sworn in as constables they are in the position of any prison warder who may be ordered to flog or otherwise punish by torture a prisoner. Even if this is true, and it often has been asserted, I have never been able to see that this special attribute of a prison doctor's work was compatible with the honourable position of being a member of our profession.

Perhaps Dr. Sers may be able to suggest how forcible feeding as practised in our prisons is compatible either with British principles of equal justice to all prisoners or with the humane ethics of medical practice.

The last two paragraphs of Dr. Sers' letter are not germane to the issue. I have shown many times since the Leigh case, five years ago, that the attempts of anti-suffragists to crush by brutality and force the movement for universal suffrage only creates outrages.

Therefore Dr. Sers must ask the anti-suffragists to find an answer to his question. Certainly forcible feeding and that monstrous failure the Cat and Mouse Act are not answers.

I am, Sir, yours truly,
Victor Horsley.

25, Cavendish Square, London, W.,
August 19th.

THE INFECTIVITY OF CANCER.

To the Editor of The Medical Press and Circular.

Sir,—Although I have no desire to attempt to discuss this question from a scientific point of view, I am in entire agreement with your remarks as to the pernicious and one-sided attitude of the lay Press in disseminating these (presumably) cancer "scares" amongst the general public; nevertheless I have good reason to believe that many medical men were undecided—at any rate, until quite recently—as to the infectivity of cancer, and it is only fair to state that a few years ago I wrote to your contemporary the *Lancet* on this very question, and, although my letter was not published, the editor very courteously acknowledged it, and stated that his experience was not in accordance with mine. In case, however, any of your readers may still entertain doubts, I presume to offer a remark or two. Although evidence operates differently on different thinkers, it has occurred to me, and probably to many others, that, inasmuch as in the vast majority of instances medical men cannot be found who have treated or attended two cases of cancer in a house simultaneously, this affords sufficient and considered evidence, to my thinking, that this disease is not infectious, for the simple reason that the same cannot be said of any other infectious or even contagious disease, either zymotic or parasitic. Having a special interest in the subject, I recently purchased at a second-hand dealer's an old book entitled "The Nature and Treatment of Cancer," by Walter Hayle Walshe, M.D., Physician to University College Hospital, 1846, which seems to coincide with what I have just stated. Dr. Walshe's views are briefly as follows:—"The opinion that cancer ranks amongst diseases transmissible from individual to individual by means of an infectious principle is not even at the present day without its supporters. . . . Of the thousands of individuals engaged in attendance on cancerous persons, how many become similarly affected? Were the disease thus transmissible, would it not be common to hear of husbands, sharing for years the bed of their cancerous wives, being seized with the malady, yet a single authentic instance of such an occurrence remains to be recorded."

Yours, etc.,
Clement H. Sers, M.R.C.S.

5, Chanctonbury Road, Hove,
August 21st, 1914.

REVIEWS OF BOOKS.

ACUTE ABDOMINAL DISEASES. (*a*)

Since the appearance of Lejars' "Urgent Surgery" we have not met with a clearer description of abdominal emergencies and their treatment than in the present volume. The teaching is sound all through and eminently reasonable. We welcome the collaboration of physician and surgeon, for acute abdominal diseases come under treatment by all members of the profession, and it is necessary to set forth every point of view. We are glad to see that immediate operation is advocated in acute appendicitis, and that the various complications which may be met with on opening the abdomen are adequately considered. The chapter on hernia is admirable, but we would like to see more exact details given with regard to the treat-

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(*a*) "Acute Abdominal Diseases, including Abdominal Injuries and the Complications of External Hernia." By Joseph E. Adams, M.B., M.S., F.R.C.S.Eng., and Maurice A. Cassidy, M.A., M.D., F.R.C.P.Lond. Pp. 541. London: Baillière, Tiudall and Cox. Price 12s. 6d. net.

ment of *hernia en glissade*. There are operations for this condition, after which there is no necessity for the patient to wear a truss, and they require very little more time for their performance than the one described. Every author seems to consider his book incomplete without a preliminary chapter on the anatomy of the part under discussion, but we consider that if the surgeon about to operate does not already know instinctively the anatomical arrangements with which he is about to deal he had better hand the case over to somebody who does. We do not blame a surgeon for refreshing his anatomical knowledge before an operation, but we think that he would scarcely require to look up the position of the ascending colon or the course of the deep epigastric artery. If a chapter on anatomy is necessary it should deal very fully with the subject or should be confined to special details which the author has found to be of special importance. It would be worth the time of every surgeon to read the last chapter on the diseases which simulate acute abdominal lesions; we are afraid that the possibility of their presence sometimes occurs to the surgeon after he has opened the abdomen. This book is a good one, and we would recommend it to everyone who is beginning the practice of surgery, and it would do the most experienced surgeon no harm to consult its pages.

THERAPEUTIC VALUE OF THE POTATO. (*a*)

THIS monograph is based on an article contributed by the author of the *Lancet* of April 11, 1914, and it deals with his researches into the therapeutics of the common potato. He finds two outstanding properties in raw potato-juice. First, a prompt relief from pain, and, second, a rapid absorption of fluid in cases of synovitis. At first sight the potato would not seem likely to possess any great curative effect. No alkaloid is present, and potassium salts are the chief ingredient. Anyway, in the author's hands it gives results. His method is to press the juice out of the tubers, remove the starch and nitrogenous matter and concentrate with heat till an extract five times the strength of the juice is obtained. This is the *extractum solani liquidum*. An ointment, a liniment, and a plaster are made, and the sterilised extract is also put up in ampullæ. Dr. Howard gives details of his methods and results, and finds that great benefit results from the use of his preparations in synovitis, gout, lumbago, rheumatism, and bruises. We hope others will be equally successful.

LOURDES (*b*)

THIS volume provides an account of the focus of pilgrimage which so conspicuously attracts both the exalted piety and the scientific curiosity of this our highly educated and very much emancipated generation. It is sure to be widely read, as the general attitude of the public—with all its conflicting views—and the very exceptional abilities of the author must combine towards the total effect of concentrating attention on a document of which the very title suggests so much of life and inspiration—and contradiction. Mr. Belloc very justly represents the *status quo* in his interesting and well thought-out preface: "'Lourdes' means, of course, the complex of emotion, marvel, site and religious theory, for which that word stands." And we believe that we are fairly accurate in our suggestion that Lourdes may also be taken as the standard of the militant champions of the claims of the spiritual part of the human organism in opposition to the unquestionably well-worked ones of the material substratum. We will here venture an opinion that Mr. Belloc has a visible as well as tangible foundation of truth for his statement that: "The men who control our Press to-day are as ignorant as they are brutalised by intrigue and avarice, and blinded by these and other appetites to reality and to proportion." Those who have been in intimate contact throughout with the limits of the intellectual media of the past quarter of a century must —if quite candid in the expression of their views—admit that the above presentation is by no means an unfair one of at least one profile view of the general mass of our emancipated intellectuality, educated and engineered, as it has come to be, by the grossest of mechanical materialism. Without attempting to formulate any opinion regarding the mutual relationship of mind and matter, and the oscillating claims for relative ascendancy which have been so often advanced by self-constituted advocates, we would just point out to the inquiring reader that the continuous influence of mind over matter—of the spiritual and emotional over the chemical and gravitational—are being continually ignored (whether unconsciously or otherwise) by persons who have every day presented to them examples of the sudden blanching of fear, the radiant glow of hope, and the ashen depression of hopeless sorrow (with the invisible microbe always lying in ambush!). The self-satisfied materialist may also be invited to ponder over the suggestion that it is to the attempt to suppress the emotional aspect of human nature and to reduce all vital phenomena to the dictates of the rule of three that misguided humanity now owes the evolution of the nihilist and the suffragette. The object lesson of Lourdes may be read in very varied lights.

CANCER OF THE RECTUM. (*a*)

FOR several reasons this book is noteworthy, first, because it gives the personal experiences of a surgeon who must be regarded as one of the founders of the modern treatment of rectal cancer; second, because the author's conclusions are based on a very great number of cases; and third, because the book abounds in practical observations on diagnosis and details of treatment. The comfortable way of applying a T-shaped bandage is described. The book is of interest with regard to the history of the subject as it includes the Jacksonian prize essay, written in 1876. We are more in accord with Mr. Cripps' treatment than with his pathology. The relationship described between epithelial cells and leucocytes is puzzling in the light of modern pathology. Neither do we agree with him as to the relative uselessness of the sigmoidoscope. With patience this instrument is usually a useful aid and sometimes invaluable. We find only three pages devoted to the combined method of operation. The book, however, does not pretend to deal exhaustively with the subject; it is simply a record of personal experiences in this branch of surgery, and as such is valuable.

APPLIED PSYCHOLOGY. (*b*)

THE present readable and handy booklet furnishes an important as well as interesting item of testimony to the quality and prevalence of the methods and attainments of our motile democracy in its present transient stage of progressive evolution. We have here the obvious aim at popularisation of one of the most intricate subjects of human investigation, and the suggested hope of mastering the same in a few short lessons—the lessons being presented in apparently clear and self-revealing sentences and paragraphs; and skimming, if not exactly penetrating, the receptacles of thought and displaying to view the weapons used in its arsenal. And the result obtained is what would have been anticipated by those who know something about these matters: the diction and phraseology are usually good—as such things go; the statements and style are fairly clear, although not always logical; the "Introduction" is one of the most readable and illuminating sections of the text; and the general standpoint is apparently that of omniscient vision combined with the "total internal reflection" which unfailingly transmits all received beams of intellectual

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(*a*) "The Therapeutic Value of the Potato." By Heaton C. Howard, L.R.C.P.Lond., M.R.C.S.Eng. Pp. vi. and 31, with two figures. London: Baillière, Tindall and Cox. 1914. 1s. net.

(*b*) "Lourdes." By Johannes Jörgensen. Translated with the author's sanction by Ingeborg Lund. With a preface by Hilaire Belloc. With illustrations. London: Longmans, Green, and Co. 1914.

(*a*) "Cancer of the Rectum, its Surgical Treatment." By Harrison Cripps, F.R.C.S. Pp. 279. London: J. and A. Churchill. 1914.

(*b*) "The Mind at Work: A Handbook of Applied Psychology." Edited by Geoffrey Rhodes. London: Thomas Murby and Co. 1914.

light in the direction along which their luminosity is desired. The average educated voter will have learned a good deal—though, we feel sure, not nearly so much as he will feel disposed to think—when laying down the closely read volume, that he has securely and permanently mastered. We incline to think that this compendium of things psychological and philosophical would have pleased the great Lord Chancellor Bacon, and it certainly reaches the average standard level of Herbert Spencer—an estimate which would be regarded by most contemporary writers as very high praise. It represents a contributory item in the movement of procrustean standardisation, which seems to aim at bringing all human intellects to the same uniform level, in the coming generation, all over the whole area of civilisation. The result will hardly prove a brilliant one to persons of our way of thinking: the amateurs will be sufficiently numerous to crowd out—almost to suffocate, or actually crush—the experts, whose dwindling numbers and opportunities will eventually leave the psychology and most other high-class intellectual work to be begun all over again. Meanwhile, for those who like this sort of thing, the booklet before us will, we think, prove acceptable.

LUXOR AS A HEALTH RESORT (*a*).

THIS is the second edition of a booklet of which the first issue appeared just a year ago. The date thus tells the tale of public appreciation. The name of Luxor calls up a spirit of glamour before the imagination of the historian, the ethnologist, the religionist, and the soldier, as well as one of discriminating attraction before that of the meteorologist and the experienced medical philosopher. For the connotation remains perennially associated with the earliest extant annals of king-craft and of priest-craft, with the most pronounced peculiarities of climate above and of terrestrial productiveness below, as well as with the modern records of battlefield achievement and of political chicanery; of the quasi-miraculous conquests of the greatest of warriors and of the greatest of engineers.

PROGNOSIS IN PULMONARY TUBERCULOSIS. (*b*)

THIS large octavo volume is thoroughly representative of the zeal, honesty and tenacity of purpose which carries the earnest citizen of the Vaterland through so enormous a quantiy of intellectual labour of the highest quality. No available source of enlightenment—of all the beams and scintillations, old and new—that has been hitherto focussed on the dark places of the origin and destructive movements of the great white plague would seem to have escaped the researches of our authors. And we are glad to observe that some of the most respectfully mentioned conclusions of the endless list of authorities quoted in the present encyclopædic volume are the old and uncontradictable observations and suggestions which are to be found embodied or outlined in the aphoristic expressions of clinical experience that date back to the days of the inspired "Father of Medicine" himself, or even further. Thus we find that Güuzburg, in discussing the subject in 1861, informed his readers that the "sanguinische, plethorische, lebhafte, reizbare Subjeckte sind mehr gefährdet als colche von entgegengesetzter Konstitution." And B. Fr. v. Koranyi expressed the opinion that: "Ruhiges Temperament, Besonnenhit, starker Wille, um schädlichen Einwirkungen auszuweichen, verbessern die Aussichten; sentimentale, bitzige, zügellose Natur verschlimmert dieselben." And so it will, we believe, always continue to be—absolute precision of familiarity with the private life of the bacillus tuberculosis and its bacteriological pathology, and with the varied clinical adaptations of the therapeutic qualities of tuberculin notwithstanding.

PHYSIOLOGIE NORMALE ET PATHOLOGIQUE DES REINS (*a*).

THIS beautifully printed octavo contains a comprehensive summary of the results which the researches of recent years have contributed towards the illumination of this domain of clinical knowledge. Indeed, it represents in its most luminous and intelligible aspect the grade of achievement that has been found attainable in the characteristically "modernist" attempt to reduce the principal function of an organ of the living mechanism to the definite expression contained in a mathematical formula—while inevitably suggesting the half-prophetic view that laws of correspondingly definable limiting powers may in the future be proved to control the respective functions of the various other glands of the human economy. The terms expressive of renal filtration and permeability have been shown to correspond but very remotely to expressions of actual fact. The study of the modified functions of diseased kidneys in the Hôpital Necker has specially utilised the ureo- and chloruro-constants of secretion, especially the former; and the fact that the Académie des Sciences has this year awarded the "prix Monthyon" to M. Ambord, the highest distinction awarded by his country as a reward for scientific research, may be taken as proof of the quality of his work. We accordingly have no hesitation in recommending the present volume to the attention of every earnest practising physician. The quantity of new and enlightening material here collected and lucidly displayed is too large, and its quality far too high, to make any attempt at critical detail either logically just or scientifically desirable. The contents of this volume should be assimilated *in globo*; we will guarantee their nutritive property.

INTERNATIONAL CLINICS. (*b*)

THE present volume is on a par with other numbers of this well-known quarterly. It contains eighteen articles under the headings of Diagnosis and Treatment, Medicine, Surgery, Neurology, and Eugenics. Rather more prominence than usual is given to psychotherapeutics. All the articles are well up to the standard that the editor and publishers have led us to expect, and the illustrations to such articles as are illustrated are good.

SCHOOL LIGHTING. (*c*)

THIS monograph is issued by the Medical Officers of Schools Association, before which it was originally read. The question of both the daylight and the artificial lighting of rooms where numbers of children are to work is one of great importance. Till 1866, when Cohn made his investigations with reading type, no notice had been taken of the matter. Cohn concluded that the window area in every schoolroom should be at least one-fifth of the floor area. Various other authorities have increased the proportion of window area till some American schools have a window area actually greater than that of the floor. The amount of light can be measured by various angular calculations made from the worst lit desk as well as by Dr. Kerr's instrument somewhat on the lines of a pin-hole camera, which can be placed on any desk and the light value immediatey read off. The direction of the illumination as well as its intensity has to be considered. As we are right-handed our light must come from the left to avoid annoying shadows while writing. Cross shadows and ventilation has to be taken into account, as well as the whole system of artificial lighting. In this case the chief

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(*a*) "Luxor as a Health Resort" By W. E. Nickolls Dunn, M.D.,Lond., M.R.C.S., L.R.C.P: and Geo. Vigers Worthington, M.B., B.C.Cantab., M.R.C.S., L.R.C.P.; Superintendent Medical Officers to the Luxor Hospital for Natives. London: H. K. Lewis. 1914.

(*b*) "Die Prognosenstellung bei der Lungentuberkulose mit eingehender Berücksichtigung der physikalischen und serologischen Befunde und der therapeutischen Prognostik." Bearbeitet von Priv. Doz. Dr D. O. Kuthy, Budapest, and Dr. A Wolff-Eisner, Berlin. Mit 21 Textabbildungen. Pp. xvi. and 472. Berlin: Urban and Schwarzenberg. 1914.

(*a*) "Physiologie Normale et Pathologique des Reins." Par L. Ambord, Chef du Laboratoire de Chimie de la Clinique des Maladies des Voies Urinaires à l'Hopital Necker. Pp. iv. and 329. Paris: F. Gittler, Editeur. 1914.

(*b*) "International. Clinics." Vol. iv. Twenty-third series. Philadelphia and London: J. B. Lippincott Co. 1913.

(*c*) "School Lighting." By E. H. T. Nash, D.P.H. Pp. 28. London: J. and A. Churchill. 1914. 1s. net.

difficulty is to have enough light without glare. Blackboards are a frequent source of trouble, as it is often almost impossible to place them so that the writing is visible without strain by some of the roomful of children. Dr. Nash has compressed a great deal of information into his little book, which cannot fail to be of the greatest value to any medical man who may be concerned with the designing of a school or similar building.

THE STUDY OF RONTGEN RAYS. (*a*)

This well-printed and well-illustrated actavo is a good introductory text-book of the very curiously fascinating, as well as instructive and clinically useful and revealing, subject with which it deals. The author is a skilled expert in the domain of physical science, and in the present labyrinthine structure of one of the profoundest strata of that vast and puzzling edifice, the exposition and corroborative testimony of an expert guide is absolutely necessary—not only at every devious turning, but at every forward footstep taken by the average college graduate or surgical licentiate. The writer has also had the advantage of wide experience as a teacher and examiner of medical students—a very desirable preliminary training for an author whose efforts in the direction of clinical enlightenment will surely be far more effective than they could possibly become without such experience. The luminosity of the text seems to stand out in sympathetic accord with the peculiar nature of the subject with which it deals. The illustrations and diagrams—97 in all—are well selected and clearly printed, so that their presence adds greatly to the power of a skilfully descriptive text. We trust that this small volume will have a wide distribution, as it seems to us to have all the qualities desirable for an introduction to the larger clinical manuals, and to the clinical practice in which Röntgen-rays now take so very important a part.

INDUCED CELL PRODUCTION. (*b*)

Where would the sciences of physiology and pathology now stand if the amœba had never been discovered, or created, or evolved? Echo, of course, answers—but we can all offer a probably approximate guess. The key of the doorway and pathway of those illuminating researches is furnished by "a working hypothesis that normal cell production and benign tumours are caused by certain reagents called auxetics, such as tyrosin, creatin, etc.; and that cancerous tumours are caused by a mixture of auxetics with another group of substances, called kinetics or augmentors, such as choline and cadaverine." The volume before us deals with a very great number of phenomena, and the explanations of their production and their possible bearing upon more important collateral movements and facts. We do not think that a majority of the questions opened have been finally answered—it is not possible, and we by no means think desirable that they should be just yet—but a great deal of new light is being continuously produced and shed on the many dark recesses of the vast domain of biology. We congratulate the authors on the results already achieved, and earnestly hope that they may go on with their good work in the increasing illumination of their own widening and deepening experience.

MANUEL DE CYSTOSCOPIE. (*c*)

This volume forms another addition to the valuable series of manuals on special medical and surgical subjects which M. Gittler has recently been placing before the students and practitioners of the healing art. Its text and illustrations (of which there are 320—including some excellent ones "hors du texte") collectively constitute a very prominent example of the wonderful skill which has been attained during the past few decades in the adaptation of modern mechanical inventions to the treatment of so many lesions of the human organism, and the penetrating illumination which the innumerable sidelights of modern scientific invention have projected on the many dark places of the respective domains of diagnosis and therapeusis.

As Professor Legueu observes in his preface to the present volume: Every science demands a prolonged period of preparation from the would-be expert, and cystoscopy has proved to be no exception to that rule. But the lines of such necessarily laborious training are here laid down for the candidate in ways of pleasantness, as well as of luminosity and approximate completeness of detail. The author himself comments on the frequency with which he used to be asked by anxious pupils aspiring to expert knowledge: What is the best French work on cystoscopy?—which question he never answered, as he knew of *none!* The sphinx-like query decided him to produce the present volume—a result of which the modern scientific Œdipus may well feel proud. The volume is a luminous and thoroughly exhaustive guide-book to one of the most important domains of surgery.

MEDICAL NEWS IN BRIEF.

The National University of Ireland.

The Senate met on Wednesday, August 19th, 1914.

The Senate directed that in view of the present national crisis, and in order to facilitate the immediate entry of successful candidates for medical service in the Navy or in the Army, a special examination for the M.B., B.Ch., B.A.O. degrees shall be held, beginning on Tuesday, August 25th, 1914.

The written papers will be set at University College, Dublin; University College, Cork; and University College, Galway, to students of these Colleges respectively; but the clinical examination will be held only at University College, Dublin.

The candidates eligible to enter for such special examination shall be (*a*) those who have already entered for the ordinary autumn examination for the M.B., B.Ch., B.A.O. Degrees; (*b*) those whose forms of application for admission to the special examination for the M.B., B.Ch., B.A.O. Degrees, accompanied by fee and certificates, shall have been received by the Registrar at the National University of Ireland, 49, Merrion Square, Dublin, at or before 12 noon on Monday, August 24th, 1914.

All candidates will be required to present themselves in either (*a*) all subjects of the examination, or (*b*), if they have already passed in any part of the examination, in the part necessary to complete the examination.

No late fee will be payable in connection with this special examination.

Intending candidates are requested to give the earliest possible notification of their intention of presenting themselves for the special examination to the Registrar, the National University of Ireland, 49 Merrion Square, Dublin.

The Senate adjourned.

Plague in Hong-Kong.

It is reported that five cases of plague occurred in Hong-Kong during the week ending August 15th. The number of deaths was also five.

Society of Apothecaries of London.

The following candidates, having passed the necessary examinations, have been granted the L.S.A. Diploma of the Society entitling them to practise Medicine, Surgery, and Midwifery:—

H. S. Baker, A. G. Bodman, W. E. K. Coles, V. H. M. A. Dangerfield, L. S. Daly, C. D. Day, J. A. W. Ebden, C. de W. Gibb, R. M. Handfield-Jones, A. N. Minns, T. S. Nelson, R. H. Simpson, C. R. Smith, L. H. Terry, L. B. Clarke, G. W. Maw, H. T. Roberts, M P. dos Santos, and J. A. Watson.

(*a*) "X-Rays: An Introduction to the Study of Rontgen Rays" By G. W C. Kaye, B.A., D.Sc., Head of the Radium Department at the National Physicial Laboratory, etc. Pp. 252. London: Longmans, Green and Co. 1914.

(*b*) "Reseaches into Induced Cell-Production in Amœbæ." By John Westray Cropper, M.B., M Sc.Liverpool, M.R C S.Eng., L.R.C.P.Lond., and Aubrey Howard Drew. With illustrations. The John Howard McFadden Researches. Vol. iv. London: John Murray. 1914

(*c*) "Manuel de Cystoscopie." By E. Papin, Chef de Clinique des Voies Urinaires a l'Hopital Necker. With a preface by M. le Professeur F. Legueu. Paris: F. Gittler, Editeur. 1914.

SUMMARY OF RECENT MEDICAL LITERATURE ENGLISH AND FOREIGN.

Specially compiled for The Medical Press and Circular.

Clinical Significance of Sarcomatous Change in Uterine Fibromyomata.—Geist (*Amer. Jnl. Obs.*, lxix., 5), in a study of 250 cases of uterine and cervical fibromyomata, found twelve showing sarcomatous changes in various types. In most instances the myomata were multiple with but one focus of sarcomatous change, and only one case showed multiple sarcomatous areas. Two cervical fibromyomata showed sarcoma, and both tumours were intramural. Of the other ten cases, eight were found in submucous fibroids and two in interstitial tumours. Only one case was a solitary fibroid. Sarcoma which develops in myomata may arise from various structures in the fibroids. The clinical history of the sarcomatous cases shows nothing characteristic. From the ages of the patients, sarcomatous change appears to be most frequent about the time of the menopause. It is in these cases that the greatest care must be exercised. To a great extent the Röntgen-ray treatment is most applicable in the cases where the frequency of sarcomatous change is highest, and also in that type of tumour in which the malignant change is relatively common, and for this reason is attended with the risk of overlooking a sarcoma. F.

Treatment of Retro-displacements of the Uterus.—Worrall (*Jnl. Obs. and Gyn. Brit. Emp.*, xxv., 5) considers the most common cause of retro-displacement to be pregnancy which has ended abnormally; and next improper mode of living, especially during the developmental period of life. In considering the treatment, it is divided into purely hygienic, manipulative, mechanical (pessary), and operative. The first is considered worthy of trial. The others, except operative, are absolutely condemned. The numerous methods of treatment by operation are not considered except to object to the fixation or suspension of the uterus by either the anterior or posterior surfaces. The author is strongly in favour of suspending the uterus by a small portion of its surface immediately behind the line of junction of the tubes. He has not found any dystocia to follow in subsequent labours, and has had a good percentage of cures in the cases he has been able to follow up. F.

A Method of Sterilising and Storing Catgut.—Bartlett (*Surg., Gyn. and Obs.*, xviii., 5) advises dividing the ordinary strands into four equal lengths, and coiling them into rings about 1¼ inches in diameter. These coils are then strung on a thread. The catgut is then dried in a dry steriliser for four hours at 80°, 90°, 100°, and 110° Centigrade. The catgut is immediately placed in liquid albolene, where it is kept till perfectly clear, which takes a few hours, but it may be left for ten or twelve hours. The vessel containing the oil should be lined with thin paper. The oil is then heated in a sand bath, the temperature being raised during one hour to 160° Centigrade and maintained there for an hour. The gut is then lifted out of the oil, allowed to drip, and then dropped into a solution of iodine in methyl alcohol, 1 in 700 to 1 in 200, according to the size of the catgut from No. 00 to No. 4, and is ready for use in a few hours. F.

Abdominal Cæsarean Section for Eclampsia.—Peterson (*Amer. Jnl. Obs.*, lxix, 6), from the study of 500 cases collected from numerous operators, concludes that the maternal mortality in the five years previous to 1013 has been reduced to half that of former times. The mortality of 25.79 per cent. can be considerably lowered by *technique* and selection of cases, as shown by the thirteen operators having the largest number of cases and a mortality of 18.68 per cent., and when moribund and septic cases are excluded from these the mortality is 13.15 per cent. The effects of the poison may be so great that the emptying of the uterus may not prevent death. The convulsions continued after delivery in about 45 per cent. of the cases, and even when they cease the recovery of the patient is not certain. Operative treatment of eclampsia has never been given a fair trial. To do this the uterus should be emptied as soon as possible after the onset of the first convulsion. This is shown by the fact that the cases which were operated upon after from one to five convulsions, and where no attempts at delivery were made from below, gave a death-rate of 15 per cent. The greater the number of convulsions the greater the fœtal mortality. The two mortalities are greater in multiparæ than primiparæ, and also in proportion to the age of the patient. Any condition which makes delivery by the natural methods difficult may be an indication for abdominal Cæsarean section. F.

Intramuscular Injections of Antitoxin in the Treatment of Diphtheria.—Rolleston and Macleod (*Brit. Journ. of Children's Diseases*, July, 1914) give their experience of this method of using diphtheria antitoxin. The paper is based on their experience during the last six months at the Grove Hospital, where intramuscular have entirely supplanted subcutaneous injections of antitoxin. In all 412 injections were given to 339 patients, whose ages varied between two weeks and thirty-seven years; only 35 patients, however, were above the age of fifteen years. Of these 339, 33 patients are still under treatment, and 45 were found after injection not to have diphtheria; thus 261 completed cases of diphtheria are left to whom 324 injections were given. Of these patients 15 died, or a mortality of 5.7 per cent., which is reduced to 4.6 per cent. by excluding three patients who died within twenty-four hours of admission to the hospital. Patients with severe faucial diphtheria received from 16,000 to 20,000 units of antitoxin on admission, and usually the same or sometimes a smaller dose was repeated if necessary on one or two of the following days. Patients with moderate faucial disease received from 8,000 to 12,000 units on admission, the same dose being occasionally repeated on the following day. The mild faucial cases received from 4,000 to 8,000 units, and it was rarely necessary to repeat the dose. Patients with nasal, laryngeal, conjunctival or aural diphtheria, with no faucial involvement, and consequently little if any toxæmia, received from 4,000 to 12,000 units. On the whole the dosage for intramuscular injections has been decidedly smaller, especially in severe cases, than it had been for subcutaneous. In spite of the large doses of antitoxin used the frequency of rashes and other serum phenomena was less than usual. From their experience the writers draw the following conclusions:—Intramuscular injection, preferably in the vastus externus, deserves to supersede all other methods of administration of antitoxin in the treatment of diphtheria for the following reasons: (1) It is quite as simple as the subcutaneous method, ensures much more rapid absorption, is less painful, and less liable to give rise to abscess at the injection site. (2) It is superior to the intravenous method, not only in the greater simplicity of its *technique*, but also in the less rapid excretion of antitoxin after injection. (3) The more rapid absorption of antitoxin by the intramuscular route is shown, not by the effect on the faucial or laryngeal process, but by the lesser incidence of paralysis, especially of a severe kind. K.

The Action of Chloroform on the Blood.—Bean (*The Australasian Med. Gazette*, June 6th, 1914) records some experiments which he undertook to test the statements made by Gill as to the action of chloroform on the blood. Gill has asserted that chloroform vapour when presented to the blood takes the oxygen from the red blood corpuscles, and becomes itself oxidised into inert products, and that the resulting anæsthesia is due to oxygen starvation of the brain, since the chloroform uses up the oxygen of the blood in its own oxidation. Bean states that he has been unable to reproduce Gill's results, and his experience compels him to adopt a different interpretation of the action of chloroform vapour on the blood. He believes chloroform is poisonous to the blood, in lower percentages slowly killing it, in higher percentages quickly laking it. He believes is possible that chloroform, when used in the minimal doses necessary for the production of surgical anæsthesia, remains confined to the blood and does not invade the tissues generally. The chloroform in the blood thus causes an oxygen starvation of the tissues and brain by combining with the red blood corpuscles and temporarily suspending, or at any rate lessening, their power of taking up oxygen and handing it on to the tissues. K.

MEDICAL WAR ITEMS.

It is reported that cholera has already made its appearance in the Servian and Austrian armies.

The magnificent buildings of Birmingham University are being tranformed into the largest military hospital in the country at a cost of £10,000.

The Council of the League of Mercy have resolved to use their organisation to collect funds for hospital treatment for the sick and wounded. The offices are at 29, Southampton Street, Strand, W.C.

Dr. Kendall, Secretary of the Edinburgh University Club in New York, to-day offered a hospital unit to the Canadian Government on behalf of the graduates of Edinburgh resident in the United States.

The Oxo Company have given one ton of Oxo (£700 worth) to the Prince of Wales' National Relief Fund, and undertaken to store it free of charge, and pay carriage on it in small or large quantities as ordered off.

In consequence of the war, and for the convenience of candidates who are desirous of qualifying for medical appointments in his Majesty's service, the Society of Apothecaries of London will hold a special examination, commencing Monday, the 31st inst., for the diploma in medicine and surgery granted by the society. Full particulars may be obtained upon application to the Secretary, Water Lane, Blackfriars, E.C.

Sir Donald Macalister, Principal of Glasgow University, wishes it to be known that the University will do what it can to safeguard the academic interests of undergraduate students called to active service. The authorities whom he has been able to consult agree with him in recommending that to such students every consideration should be extended which the Ordinances will permit. In relation to attendance on courses of instruction, to duration of study, to periods of notice required, and the like, account will be taken of a student's absence on military duty; so as, if possible, to ensure that his graduation shall not be unduly delayed.

The Royal Colleges of Physicians and Surgeons of England, having regard to the exigencies of the war, have decided to hold a special final examination commencing on September 8th, to which candidates will be admitted under the following conditions:—(1) All candidates who would be eligible for admission to the October examination shall be considered admissible to the special examination in September; (2) Candidates who were referred for three months at the July examination will be admissible to the special examination in September without producing certificates of additional study; (3) Candidates who fail at the special September examination may be admitted to re-examination in October by resolution of the examiners on consideration of the standard attained by them; (4) Candidates will be admitted to any part of the examination in September if they have completed the courses of study required for that part, without having necessarily completed the whole curriculum, under the conditions of the old regulations, but they will be required to have attended all the courses prescribed by the regulations before completing the examination. Candidates who failed in July will be allowed to present themselves for the ordinary September first and second examinations in September without producing additional certificates.

THE NATIONAL RELIEF FUND.

Dear Sir,—The Committee are glad to hear of the widespread and admirable arrangements which have been made by the *Daily Express* for systematic collection, and note with pleasure the names of the important firms who have consented to help you. They trust that these efforts on the part of the *Daily Express* will lead to a substantial addition to the National Relief Fund.

Yours faithfully,
C Arthur Pearson.

York House,
St. James' Palace, S.W.
August 17th, 1914.

The above letter refers to a League which has been organised to enable those to contribute shillings, to the Prince of Wales' Fund, who are unable to afford pounds. Many people unable to give a large amount in one sum will gladly spare a shilling a week as long as the war lasts to so deserving a cause as the relief of the families of British soldiers and sailors and the alleviation of distress among the working classes, many of whom have been thrown out of work by a war which will decide the fate of the British Empire.

A shilling may be sent each week, or five or ten shillings can be sent in advance. A receipt will be sent for the first contribution, but afterwards, in order to save expense, so long as the shillings are received regularly, no further communications will be made. All sums of five shillings and over will, however, be acknowledged whenever received.

The name of every member of the League will be inscribed on a Roll of Honour, and those who subscribe a minimum of 10s. will receive certificates, issued by the Prince of Wales, which will also be receipts for the total amount they have subscribed.

Now is the time to show your patriotism by helping the families of those who are defending your homes. Join at once and send your shillings.

Employers can greatly assist the League by encouraging their staffs to join and by arranging for one member to act as collector and to forward the contributions in one sum each week. Printed forms will gladly be sent on application to any employers who adopt this suggestion.

All communications and subscriptions should be addressed: J. W. Urwin, Esq., Hon. Secretary, The Prince of Wales' National Relief Fund Shilling League, 60 Victoria Street, Westminster, London, S.W.

PRINCE OF WALES' RELIEF FUND, SHILLING LEAGUE.

I herewith enclose .... shillings for the above League for .... weeks. I will give a shilling a week to the Fund, if possible, every week until peace is declared. I will try to get .... new members.

Signed ....
(If a lady, please state Mrs. or Miss.)
Address ....
....
Date ....

NOTICES TO CORRESPONDENTS, &c.

☞ Correspondents requiring a reply in this column are particularly requested to make use of a *Distinctive Signature or Initial*, and to avoid the practice of signing themselves "Reader," "Subscriber," "Old Subscriber," etc. Much confusion will be spared by attention to this rule.

SUBSCRIPTIONS.

Subscriptions may commence at any date, but the two volumes each year begin on January 1st and July 1st respectively. Terms per annum, 21s; post free at home or abroad.

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Original Articles or Letters intended for publication should be written on one side of the paper only and must be authenticated with the name and address of the writer, not necessarily for publication, but as evidence of identity.

Reprints.—Reprints of articles appearing in this Journal can be had at a reduced rate, providing authors give notice to the publisher or printer before the type has been distributed. This should be done when returning proofs.

Dr. T. D. (London, W.).—Our correspondent's letter arrived too late for insertion in our present issue.

Tu Quoque.—Consideration of the details furnished by our correspondent leads to the belief that he has been subjected to harsh treatment. Nevertheless, we doubt the possibility of obtaining any redress.

Mr. C. Brown (N. Lancs).—Several leaflets have recently been issued giving useful information regarding the cost of food and the economic value of different foodstuffs. One of the most recent is that issued by the Corporation of Liverpool, which contains some good recipes for cheap meals.

WAR AND OUR CONTINENTAL CORRESPONDENTS.

Our French Correspondent writes (post-card dated August 14th, received August 24th):—"Impossible to send you any material; there are no meetings and no medical journals published during the past fortnight. The only item I have any hope of getting through is this post-card." Nothing has been received by us from our German, Austrian or Hungarian correspondents for nearly three weeks.

E. H. W. (Salford).—The ancient practice of bathing the limbs or even the whole body of weakly or rickety infants with sea-water is founded upon rational therapeutics. Town-dwellers must necessarily depend upon sea-salt itself for preparing sea-baths at home. We understand that there has been no advance in the price of Tidman's sea-salt, and this well-known household commodity is likely to remain in as great a demand as ever.

P. S. (Liverpool).—The matter is receiving our attention.

Provincial Subscriber.—The Library of the Royal College of Surgeons is open during the month of August, but is closed at 6 p.m. instead of 7 p.m., the latter being the usual hour.

HYGIENIC PROGRESS IN CONSTANTINOPLE.

There is a very interesting little note in the September number of *The Sunday at Home*, under this title, written by a lady long resident on the spot. In every direction the writer asserts that hygienic precautions for guarding the public health, once unthought of, or considered unnecessary, are now carefully taken. The *chopdji*, or dustman, goes round to collect the *chop* or rubbish with two bins made of tin on either side of his horse, instead of the very insanitary baskets which, dilapidated and full of holes as they were, used frequently to drop their contents as the tired horse lazily moved along. The so-called street scavengers, semi-wild and mangy dogs, no longer roam about for such garbage as they can pick up, for they have all been banished. Street vendors of biscuits, sweets, and such things are required to have their trays covered, so that their goods may not be exposed to the flies and dust. Bakers must have windows to their shop fronts, so that the bread may not be liable to be fingered by those who come to buy. Even beggars in their filthy, though ofttimes picturesque, rags, are not now allowed to sit all day on the beautiful Galata Bridge, annoying passers-by with their importunate cries for *baksheesh*.

Pater Familias.—The Admiralty regulations demand full normal vision in each eye in candidates for the Service.

M.B.Glasg.—The losses sustained by armies in war from disease are sometimes prodigious. It is said that in the American Civil War, 110,070 were killed and 249,458 died of other causes, of which one-fourth succumbed to fever, principally typhoid; one-fourth from diarrhœa or other intestinal maladies; one-fourth from respiratory disorders, and the remainder from small-pox, brain affections, and other diseases.

Dr. T. A. (London, S.E.).—In view of the rise in price of sugar it has been suggested that glucose should be employed as a substitute, to which a trace of saccharine may be added. Glucose can be prepared from potatoes or rice, and though it is not as sweet as cane sugar, it possesses very much the same food value.

Vacancies.

Rotherham Hospital.—Assistant House Surgeon. Salary £110 per annum, with board, lodging, and washing. Applications to the Secretary, G. W. Roberts, 8 Moorgate Street, Rotherham.

North Lonsdale Hospital, Barrow-in-Furness. House Surgeon. Salary £150 per annum, with residence, board, and laundry. Applications to the Secretary.

County Asylum, Whittingham.—Junior Assistant Medical Officer, also an Assistant Medical Officer. Salary £250, rising to £300 per annum, with furnished apartments. Applications to Medical Superintendent. (See advt.)

Hulme Dispensary, Manchester.—House Surgeon. Salary £180, rising to £200, with apartments, coal and gas. Applications immediately to Hon. Medical Secretary. (See advt.)

Swansea General and Eye Hospital.—House Surgeon. Salary £125 per annum, with board, washing and attendance. Applications to W. D. Hughes, Secretary.

Swansea General and Eye Hospital.—House Physician. Salary £125 per annum, with board, apartments, and laundry. Applications to W. D. Hughes, Secretary.

Horton Infirmary, Banbury.—House Surgeon. Salary £120 per annum, with board and residence in the Infirmary. Applications to E. Lamley Fisher, Hon. Secretary, Horton Infirmary, Banbury.

Brighton Throat and Ear Hospital, Church Street, Queen's Road.—Non-Resident House Surgeon. Salary £150 per annum. Applications to Mr. E. W. Pilbeam.

Nottingham General Dispensary.—Assistant Resident Surgeon. Salary £180 per annum, with apartments (not board), attendance, light, and fuel. Applications to C. Cheesman, Secretary, 12, Low Pavement, Nottingham.

Manchester Northern Hospital for Women and Children, Park Place, Cheetham Hill Road.—House Surgeon. Salary £120 per annum, with apartments and board. Applications to Mr. Hubert Teague, Secretary, 38 Barton Arcade, Manchester.

Royal Albert Hospital Devonport.—House Surgeon. Salary £150 per annum, with board and laundry. Applications to the Chairman of the Selection Committee, Royal Albert Hospital, Devonport.

Appointments.

Holland, Eardley, M.D.Lond., M.R.C.P.Lond., F.R.C.S.Eng., Assistant Obstetric Physician to King's College Hospital.

White, C. Richardson, L.R.C.P. and S.Edin., L.F.P.S.Glasg., Public Vaccinator and Medical Officer for the Glasbury District of the Hay Board of Guardians.

The Medical Officer in Charge, Military Wing, Royal Flying Corps, Farnborough, Certifying Surgeon under the Factory and Workshop Acts for the Farnborough No. 2 District of the County of Hants.

Births.

Benson.—On August 14th, at 72 Lower Baggot Street, Dublin, the wife of Charles M. Benson, M.D., F.R.C.S., of a son.

Bonn.—On August 20th, at Polesworth, Warwickshire, to Dr. and Mrs. N. T. Bood—a son.

Elphick.—On August 18th, at 1 Carlton Hill, N.W., the wife of George J. F. Elphick, M.D., M.R.C.S., L.R.C.P., of a daughter.

Gibson.—On August 18th, at the Corner House, Brentwood, Essex, the wife of A. J. Gibson, M.B., B.S., of a daughter.

Kenrick.—On August 17th, at Pachmarhi, the wife of Major W. H. Kenrick, I.M.S., of a son.

Matthews.—On August 22nd, at "The Limes," Lower Gornal, Staffs, to Dr. and Mrs. Matthews—a daughter.

Milne.—On August 17th, at Manchester Old Road, Middleton, the wife of J. Milne, M.B., of a son

Morriston Davies.—On August 23rd, at 85 New Cavendish Street, W., the wife of H. Morriston Davies, of a daughter.

Reeve.—On August 14th, at 1, Cranley Gardens, S.W., the wife of Dr. Edward G. Reeve—a daughter.

Smith.—On August 22nd, at Low Bank, Queen's Drive, Mossley Hill, Liverpool, the wife of George F. R. Smith, M.D., Lieut., R.A.M.C. (T.F.), of a daughter.

Stamm.—On August 15th, at 43 High Road, Streatham, S.W., to Dr. and Mrs. Louis Stamm—a daughter.

Wilson.—On August 18th, at 93, Jesmond Road, Newcastle-on-Tyne, the wife of W. Frank Wilson, M.B., of a daughter.

Marriages.

Beebe—Rust.—On August 22nd, at St. Swithin's Church, Cannon Street, Theodore Chaplin Beebe, B.A., M.D., of Boston, U.S.A., to Ethel (Haskins), of Boston, widow of Frank Lee Drummond Rust, M.D.

Booth—Elliott.—On August 18th, at St. Barnabas' Church, Kensington, Claude Hebden Barker, M.R.C.S., son of the late Samuel Barker Booth, of Gray's Inn, London, to Grace Octavia, youngest daughter of the late Edmund Frederick Elliott and Mrs. Elliott, of Holland Road, Kensington.

Hallinan—Marr.—On August 24th, at Westminster Cathedral, John Cecil Hallinan, M.R.C.S., L.R.C.P., third son of J. T. Hallinan, Esq., Montonvort, Clapham Common, to Alison Helen, daughter of John Marr, Esq., Uppermill, Tarves, Aberdeenshire

Oulton—Flower.—On August 18th, at Holy Trinity Church, Brompton, S.W., Ernest Vivien Oulton, B.A., M.B., B.C. Cantab., son of the late William Oulton, Esq., LL.D., and Mrs. Oulton, of Hillside, Gateacre, Liverpool, to Nellie M. Flower, daughter of Alfred and Mrs. Flower, of 41 Queen's Gate Gardens, S.W., and Mena Cottage, Bexhill.

Vincent—Overton.—On August 17th, at Winnipeg, Canada, Professor Swale Vincent, M.D., to Beatrice, daughter of Mr. and Mrs. William Overton, of 41 Nevern Square, S.W.

Deaths.

Clarke.—On August 7th, at Brighton, from double pneumonia consequent upon accidental immersion, Harry Edward Clarke, M.R.C.S., L.R.C.P., of 34 The Avenue, Bedford Park, W., aged 37.

HULME DISPENSARY.

DALE STREET, STRETFORD ROAD, MANCHESTER.

WANTED a HOUSE SURGEON duly registered and fully qualified. Salary £180 per annum. Annual increase £10 to £200, with apartments, coal and gas. Applications, with testimonials, at once to Honorary Medical Secretary.

THE MEDICAL PRESS AND CIRCULAR.

"SALUS POPULI SUPREMA LEX"

VOL. CXLIX. WEDNESDAY, SEPTEMBER 2, 1914. No 10.

NOTES AND COMMENTS.

The War. ONE of the chief facts one must look forward to in the war that is now raging on the Continent is an enormous number of wounded. On no previous occasion in history has fighting been conducted on so vast a scale, and with the use of projectiles of similar range and power. A great many of the combatants are killed outright, but of those struck in non-vital parts by bullets of high velocity fortunately a fair proportion are able to make a quick recovery—that is to say provided the requisite surgical treatment and nursing are available. The provision of an adequate medical service, however, difficult as it is in wars of ordinary magnitude, is multiplied tenfold in a struggle of the Titanic nature that has been forced on the world by the insane ambition of the German Emperor. So far as the British "casualties" are concerned, there can be little doubt that the resources of the Royal Army Medical Corps must be taxed to the utmost.

"5,000 or 6,000 Casualties." THE first great conflict of our own troops, acting with the French, took place near Mons. Here our small force was opposed to the Germans in vastly superior numbers. By the sheer weight of their adversaries our soldiers were pushed back with great loss day by day in an action that lasted during the 23rd, 24th, 25th and 26th August. Lord Kitchener stated officially on Monday that Sir John French estimated the British casualties at between 5,000 and 6,000. As the fighting was continuous and the whole of the four days was practically spent in slowly retreating before a numerically superior force, it is clear that many of our wounded soldiers must have been left on the field of battle. The German losses, so it seems, clearly were far greater than our own, and as their time must have been fully occupied in pressing their attack and in looking after their own wounded, it is painful to think of the exposure and starvation to which the disabled British troops were of necessity exposed. Moreover, under the stress of a retreat the bearer and hospital arrangements share the general danger and confusion.

The Strain on the Army Medical Service. The plain truth appears to be that the care of the sick and wounded in this terrible war has thrown an enormous strain upon our medical men and the nurses. The ordinary needs of the population must be attended to, and all who can be spared are wanted at the front or the base hospitals, where, indeed, they cannot possibly supply more than a fraction of the skilled attention that is freely accorded alike to friend and foe, to combatant as well as to non-combatant. Those of our own wounded who can bear the journey are being brought over to England, where ample private and public hospital accommodation has been already provided. A great many medical men, both consultants and private practitioners, have thrown up their work and gone to the front, where they have been joined by what may be called the floating medical population, the men who do *locum tenens* work, the younger men who have not yet settled down to practice. This source of depletion in routine work has to be made up somehow, and it is to be feared that for a long time to come there will be a considerable shortage in the medical staffs of Poor Law and voluntary hospitals and asylums, not to mention other branches of public medical service. Some of the qualifying bodies have so far relaxed their regulations as to grant facilities for obtaining a diploma to senior students. The war has hardly begun in earnest so far as the United Kingdom is concerned, and it may pretty safely be predicted that sooner or later the demand for qualified medical men will be far greater.

The Extent of the War. MUCH the same thing will happen with the nurses. Already there is a shortage of nurses for private and public work at home. The Red Cross and St. John Ambulance Association are perforce utilising the services of women who are only partially trained. It must not be forgotten that the war more or less involves the greater part of Europe, and medical men and nurses are wanted, not only to tend our own troops, but also to carry on the work of mercy in the Servo-Austrian, the Russo-Austrian and Russo-Germanic lines, as well as the stupendous field of operations involved in the German invasion of Belgium and France. In a war of this scale and ferocity it may safely be assumed that the medical army will in many instances suffer more or less severe loss in spite of their non-combatant standing. The Germans have introduced into modern warfare the methods of their early barbarian ancestors. In not a few instances they appear to have deliberately violated the Red Cross badge, which is rightly regarded as sacred by civilised peoples. Apart from conduct of this kind there are many accidents that threaten army hospital staffs, especially in these days of rapid retreats and advances, and of battles carried on largely with long-range weapons.

Testing the R.A.M.C. SINCE our war with the Boers, great advances have been made in the organisation of the Army Medical Service, as in other branches of military administration. In that war a great loss of life occurred amongst British troops from enteric fever and other preventable causes. The medical experiences of the present war will be followed with great interest, as a test of the efficiency obtained by our Army medical authorities. The small size of the British Armies has required a medical branch of correspondingly diminutive proportions. Now, with the sudden vast expansion of our combatant army a large addition is needed for its medical service, in order to bring it up to anything like a reasonable war footing. Whatever is to be attempted will have to be put in hand at once. It is probably far easier to enrol and train a second army within the allotted time of six months than to organise an adequate medical service in its behalf. In the period mentioned a man may acquire a good working acquaintance with drill, rifle-shooting, sword exercise, artillery and other warlike arts, but it takes four or five years to teach a man the fundaments of medicine and surgery. Even then the young qualified medical man has to subject his theoretical knowledge to the test of practice before he gains the firm ground of experience. However, whatever the future may have in store as regards the medical men of the United Kingdom and this great war, the country will not look in vain to the members of the medical profession, young or old, obscure or distinguished, for that measure of duty, nobly and courageously discharged, which has been displayed in so marked a manner by all classes of our countrymen in the present crisis.

Infectious Diseases and Armies.

THE report that cholera has already made its appearance among the Servian troops is only what is to be expected, even among the most favourable conditions of modern warfare. It is next to impossible to get men half dying of thirst to reject the muddy supply of water teeming with pathogenic bacteria within reach, and wait for the arrival of the field-carts containing *aqua pura*. The still small voice of science is silenced by the clamourings of human nature in its frailty and distress. So rapid is the multiplication of cholera vibrios, typhoid bacilli and coliform organisms under these circumstances that the specific diseases to which they give rise claim ten times the number of victims of those slain in battle. So far as typhoid fever is concerned the danger is considerably enhanced from the probable presence in camps of "carrier" cases, and this source of risk is always an unsuspected one. During the past few days powerful pleas for the adoption of the practice of compulsory anti-typhoid inoculation have been advanced both in the professional and also in the lay press by Sir William Leishman and Sir William Osler. The method of anti-typhoid vaccination has the advantage of producing only a slight and seldom an incapacitating reaction and it is innocuous. It is earnestly to be hoped that strong pressure will be brought to bear upon the authorities with a view of rendering the practice compulsory. With regard to cholera we learn that a proposal is on foot to organise a special cholera corps to serve under the Russian Red Cross, consisting of ten medical men and twenty nurses.

The Danger of Unvaccinated Troops.

ANOTHER disease which is to be feared among troops is small-pox. Lulled by a false sense of security, felt by the absence of small-pox in epidemic form during the last few years, the populace in this country can hardly realise the gravity of massing large numbers of men together in camps, many of whom are insufficiently protected by vaccination or re-vaccination. In reply to a question in the House the other day, the Under Secretary for War stated that a circular had recently been issued informing General Officers Commanding that members of the Territorial Forces who had conscientious objections should not be vaccinated. It was felt, however, that the danger of an outbreak of small-pox among troops under the present conditions was far from being imaginary and that, consequently, every effort was being made to get men to be vaccinated while those who objected were being informed that unless they submitted to vaccination they would be of little service in the field. So far so good, but why leave anything to chance when so much depends upon the physical efficiency of each unit of the Forces? It should not be impossible to introduce a short Bill rendering vaccination compulsory for all fighting men, or, for that matter, for every citizen. The well being of a nation must predominate over the whims of a few unreasoning objectors. We cannot afford at this time in our history to take any unnecessary physical risks.

LEADING ARTICLES.

THE ANNUAL REPORT OF THE METROPOLITAN ASYLUMS BOARD.

ALWAYS a most interesting volume, the Annual Report of the Metropolitan Asylums Board for 1913 forms no exception to its predecessors. When it is borne in mind that the Board possesses the control of numerous hospitals, institutions and establishments, many of which are widely different from each other in aims and objects, the inappropriateness of its present title becomes at once obvious. The alternative name of the Metropolitan Public Assistance Board, advocated by the Royal Commission on the Poor Laws, seems to be quite a suitable one. Considerable attention was paid by the Board during the year to the question of the provision of sanatoria for insured and non-insured persons, and, after a good deal of re-arrangement, the Downs School, Sutton, and a portion of the Northern Hospital at Winchmore Hill were opened as sanatoria for tuberculous patients, having a joint accommodation of some 550 beds. Since the end of the year a further extension in this direction has been arrived at whereby two sanatoria for men and one for women are to be built for the treatment of insured persons. The arrangements for the treatment of uninsured patients, it is understood, are still under discussion with the London County Council. The needs of chronic and advanced cases are not overlooked, for a home has been opened in the south-western district of London for the reception of advanced cases in women. The question of the provision of increased accommodation for unimprovable adult and children imbeciles is still under consideration. Much interest is attached to the comprehensive report of the Casual Wards Committee, and from the socio-economic standpoint the working of the scheme established for the assistance of the homeless poor at night shows the good that accrues from the co-operation of the various voluntary agencies that exist for the benefit of the vagrant. Through the help of the office established on Waterloo Pier a large number of homeless persons have not only been prevented from "sleeping out," but have been actually brought into touch with those remedial agencies which place the applicants in a position to make a fresh start in life. The care of children has always constituted a special feature of the work of the Board, and it is satisfactory to note the progress made in connection with the reconstruction and enlargement of East Cliff House, Margate, which, when complete, will provide a sanatorium for children with 270 beds. The number of cases of ringworm of the scalp admitted to the Park Hospital during the year was 612, and, taking a date at random, it was found that out of 100 consecutive cases the number of days elapsing between the date of X-ray administration and that of the certificate of fitness for discharge was 30.2. It is satisfactory also to note that the treatment of trachoma by means of carbon dioxide snow has been carried out with success in a large number of cases. Turning to the report of the Statistical Committee we find that 33,994 cases of infectious disease were notified in the metropolis last year, as against 25,237 cases in 1912, the increase being due to a greater prevalence of scarlet fever, diphtheria and enteric fever. Only one case of small-pox was admitted to the Board's hospitals, and five cases of cerebrospinal meningitis. The difficulty which still surrounds the diagnosis of most of the exanthemata is once more illustrated by the fact that 9.0 per cent. of the total admissions into the fever hospitals were found not to be suffering from the diseases for which they were admitted upon notification. The number of admissions into the Board's asylums was 943, as against 855 in the previous year. The ambulance service, both by road and river, has been kept very busy during the year, no fewer than 71,634 removals having been effected. The usual bacteriological laboratory examinations have been undertaken during 1913, and much useful work in connection with the preparation of antitoxin, tuberculin dilutions, etc., has been carried out. In the medical supplement to the report, after the usual comprehensive statistical tables, appear some interesting papers by various assistant medical officers of the Board, among which may be noted one on "Intramuscular Injections of Antitoxin in the Treatment of Diphtheria," by Drs. J. D. Rolleston and C. R. Macleod; and one on "The Use of Physical Exercises in the Sanatorium Treatment of Pulmonary Tuberculosis," by Dr. T. Nicol. Altogether the volume is a valuable record of the activity of a great public body, and it may be hoped that when the next issue appears it will bear the imprint of a newer and more comprehensive title than that of the Metropolitan *Asylums* Board.

Dr. Murdock Macdonald, M.D.Glasg., D.P.H., lately Assistant Medical Officer of Health and School Medical Officer for Huddersfield, has been appointed Tuberculosis Officer by the Deptford Borough Council.

CURRENT TOPICS.

War and Humanity.

The "mailed fist" has fallen, remorselessly, murderously, upon poor defenceless civilians, men, women and children; upon wounded men lying helpless on the battlefield, claiming as a right the succour and the protection of humanity's laws, and upon many another innocent person, whose life has been brutally destroyed by the German troops. This is a dangerous system upon which to practise war in these days of civilisation. In the middle ages such wanton cruelty might have been excusable: excusable upon the ground that civilisation had not then sufficiently advanced to exert its refining influences upon the protection of human life and property. To revert, however, in this the twentieth century to practices which, in their murderous effects, could scarcely have been exceeded even in the days of savage warfare, has brought upon the vaunted Kaiser and his troops the execration of the civilised world. A nation whose military despotism has been based upon such a foundation is a menace to every other. The world is not large enough to contain such braggarts, who ruthlessly, deliberately, wantonly defy all dictates of humanity, and defile the name of humanity by their acts. There is "cricket" in warfare no less than in other things in life; warfare between civilised nations in these days does not imply, nor demand, nor does it create, a lust for blood, which no human instinct can control, even if we admit, as the Kaiser claims, that war cannot be successfully prosecuted "in velvet gloves." There remains, therefore, the fact that no warfare can justify deluging the hands in the blood of defenceless women and innocent children, of which the German troops have been guilty, as eye-witnesses have testified. The advance of civilisation, if it has taught anything, has impressed upon humanity the sacredness of human life and its value: to the furtherance of that great principle the discoveries of science have been wholly directed. As medical men, we are in the position to judge, for example, how much the advance of medical science has diminished the horrors of war. The German troops themselves are even benefiting from those great advantages, and yet they deny to the poor victims of their savage cruelty the ordinary instincts of humanity, which the advance of civilisation has raised to so high a level of refinement. Thus has the Kaiser begun his megalo-maniacal war, not against the nations with whom he is fighting, but against humanity itself. Of course, we must assume that a War Lord, having adopted this plan of campaign, is conscious of what he is doing. At the same time he may have forgotten that history has shown that under these circumstances humanity is quite capable of taking care of itself, and of emphasising its power, not by reprisals, but by subjecting to condign punishment the instigator of the violation of its principles.

Circulars.

There are certain small advantages that we owe to the present state of war. Our normal state is one of postal bombardment. We are used to circulars, universal and innumerable. There is no land within the Postal Union that does not constantly overwhelm us with *soi-disant* "literature." The printed foreign pamphlet sometimes amuses us by the rich individuality of its alleged English. The most noteworthy thing about it is the endless variety of its postage stamps. Our English firms send us useful if monotonous packets of adorned blotting-paper. We use them and are thankful. The Continent relies on the printed word. Its reliance is often ill-founded. We are in no mood to appreciate ill-printed information in long-drawn hazy English. America is always trying to devise something new, and often succeeds in being either generous or useful. She sends us comparatively expensive things that we hesitate to throw away for fear lest we should like to promote them to a position of positive utility in the vague future. Anyway, whatever goods the gods have provided us are gone. We shall have to buy blotting-paper and provide our own note-books. It is a sad prospect. The daily papers will now make but exiguous spills, and when the maps are cut out, hardly that. It is one of the penalties of greatness. It is only now when the postman passes us that we see what we are missing. We used not to notice the advertising for the circulars. Now our supply is short and our memories are growing long. We remember. The gifts that we never noticed in the days of their abundance are noteworthy because of their absence. Our interest in German synthetics is acute because we never hear from them and cannot get them if we want to. It is fate. It is always so. We are overwhelmed with what we do not want, and when we cannot get it, then, and not till then, we acutely realise our need.

The Husbanding of Energy.

In these days of high pressure and nervous tension it is astonishing that physical bankruptcy is not of more frequent occurrence. The human body can stand an immense amount of knocking about; in fact, the harder the blows the better. One thing our poor *corpus vile* cannot endure for long, and that is the continual ebbing away of vital energy, either from the expenditure of misdirected effort or as a result of perpetual friction and worry over unimportant trifles. The hardest rock can be worn away in time from the constant impact upon its surface of tiny drops of water. Never was there such need for husbanding all our resources and energies as at the present moment. As Sir William Bennett remarked last week at the opening of the Military Service Exhibition at the Institute of Hygiene, the great stress of the war will not come for some months yet, and then will be the time that the strain upon energy and resources will be felt. Those workers who, under the stimulus of emotional excitement, are throwing tremendous energy into the work of preparation or of defence may be reminded that over-production always means waste and consequent loss of the power for doing good. A little judicious restraint and economy now will tell in the long run and will tend towards greater efficiency in the later stages of the war. "Self-control is the first secret of success" for individuals as well as for nations.

The Medical Profession and the War.

The response of the medical profession to the demands of the War Office for medical aid has been naturally gratifying. Young qualified surgeons of the necessary stamina are generally eager to engage themselves for war service. In doing so they not only supply one of the nation's needs at such a crisis, but they also benefit themselves by the opportunities afforded of gaining much valuable experience. The officers of the Royal Army Medical Corps, of course, are unable to provide the medical *personnel* required for war purposes. The medical establishment of the army is only sufficient for the needs of the Army on a peace footing. The ranks, therefore, of the Army Medical Corps have to be augmented by drawing upon the civil medical population when war supervenes. When the medical history of this war comes to be written it will probably be memorable for the high percentage of casualties in comparison with the losses from disease. The time of the year, as well as the arena of the fighting, are both in favour of the maintenance of the general health of the troops on either side. Again, the question of the commissariat department, at all events so far as the English troops are concerned, has been dealt with in a most perfect manner, judging from the reports which have reached us from men at the front. Again the need for medical and surgical consultants, it may be noted, has apparently not been so great in this war as it was in the Boer campaign, where the casualties occurred at so great a distance from expert assistance. Consequently there have been no lists of well-known physicians and surgeons appointed by the War Office for special duties at the seat of war, and yet we may be certain that if any such demand should be made by the War Office it would be readily and freely met, whatever personal sacrifice may be involved, in responding to the nation's requirements.

The Great Paradox.

We in these countries are watching, with a surprise gradually becoming dimmed by use, the hitherto unparalleled spectacle of a nation unanimously supporting the powers that it has raised up. Columns are written round the phenomenon and the utter marvellousness of the Anglo-Saxon is being fully dilated upon. No one seems to have pointed out that the nation is merely treating its experts as it has always treated its doctors. Medical men have always been trusted to put their professional instincts before their personal gains. That a reputedly sane people should give any body of men a pecuniary interest in cutting off its leg has been frequently pointed out as an instance of human imbecility. Mr. Shaw even manufactured one of his glittering insincerities to make so obvious a point. It was wrong. In this case we may trust the people. We know the scrupulousness of the average doctor. He has got so schooled to do the best for his patient that it is a thing of the greatest rarity to find the trust abused. Of course, at first sight it seems absurd to make the executioner the judge and then to pay him by the job. The fact is outside the average commercial intelligence in theory. In practice the cutest business man follows the seemingly absurd principle with the utmost faith. And he is not disappointed. One may say that no other course is open to him, but we cannot believe that if the world thought its confidence chronically abused it would not have found a way out. The fact is that the average man rightly trusts his doctor. The Chinese way of paying the physician during health, and omitting all emoluments during illness seems logical, but we all know it would be no improvement. As a profession we are always cutting our financial throats, and we will keep on doing so. It is one of the queer kinks of human nature that because we are trusted we justify the trust. *Noblesse oblige* is not yet out of date.

The Voice of the Doctor.

As America is about the only alleged civilised nation that has so far kept itself out of Armageddon, we may turn with confidence to her for the trivial things that used to interest us. She is actually discussing the voice of the doctor. We all know the beefy tenor with the heaven-sent voice which he proverbially protects with a low collar and bottled stout. It seems that we must follow this august example if we wish to succeed in our calling. Commonsense and gentlemanly behaviour, we are told, are not rare in doctors, but a cultivated voice and a pleasing behaviour are said to be rather uncommon. The work often justifies the man, but unfortunately the man sometimes knows it. We all know the man who informs his patients that the very worst will happen in the space of so many weeks if they do not follow his advice to the letter. That the statement is probably true, given an accurate prognosis, is beside the question. Listen to our urbane American: "I cannot smoke; it would destroy my power of speech. I cannot use alcohol, because it would so injure tone quality and manner of expression that the harp I depend on to bring out the melodies of thought, counsel, and advice would be marred and broken." Now, to our shame be it said, a physician is accused of having used these words at a public banquet. Music it is true is the soft charm of heaven, but the man who is so self-conscious of his charms is clearly unfit for outside interests. He is of the sort of man that relies on his presence to make his patient feel better, though he does nothing for him. There is no doubt a grain of truth in this mass of objectionableness. Knowledge and power are no excuse for tyranny. The voice and manner may instil confidence and accentuate the properties of therapeusis. But no more. Our most pernicious quacks are notorious for their charm of manner and consciously well-bred behaviour. They are as a sounding brass or a tinkling cymbal. To know is power. Dress it as you like. Appearance will never replace actuality.

False Charity.

We remarked last week on the large number of people who are at present demanding instruction in first aid and kindred subjects, and who may, if properly organised, fulfil an important function in the near future. It is with some reluctance we refer to another side of this popular movement. Much of it depends, and depends improperly and unnecessarily on the exploitation of the medical profession. In the present crisis medical men have not been backward in performing the excessive duties called for by the nation's need. Many have relinquished their livelihood and the care of their families to take their places in tending the sick and wounded of our own forces and those of our allies. Others, who stay at home, are willingly taking the places of their brethren who have been called away, and performing their home duties without reward. In addition, medical men are offering their free services in attendance on the wives and children of soldiers at the front. Others are giving their services in the organisation and teaching of first aid and ambulance classes. It is on this last point we have a word to say. We believe that these classes are fulfilling a useful function. We believe, too, that it should be so arranged that every intelligent, able-bodied man or woman should, if he feels so called, have admission to a first-aid class. Where, therefore, classes are formed for working people, it may be necessary that the lecturer, who is in most cases a medical man, should give his services gratuitously. In other cases, where the class is composed of well-to-do persons, we hold that the lecturer should invariably demand a remunerative fee. Unfortunately, this is not always done. We know of many centres where courses of lectures are being given by leading men in the profession without remuneration. These men are wasting their energies and resources needlessly at a time when these are especially needed by the country. They are forcing their charity on people who are not in need of it, and thereby debarring themselves from giving it where needed. By all means let any lecturer who chooses hand over his fees as a subscription to an ambulance association or a relief fund. We have no wish to limit the charity of our brethren. Charity wrongly directed is worse than a blunder; it is a crime. Giving free lectures on professional subjects to ladies who drive up in their motor-cars may be a good advertisement; it is not a public service.

The Mortality Rates and the Seasons.

The summer, now drawing to its close, has been exceptional for its healthiness. The years as they pass show how science has triumphed over the sources of mortality in lessening the toll from preventable disease. Formerly "summer diarrhœa," by which the disease was popularly known, used to claim a voluminous number of infants, whose deaths were mainly due to ignorance and carelessness during the heat of the summer months. With the progress of science, however, and the dissemination of the knowledge of hygienic principles, this toll of preventable mortality has noticeably decreased within recent years, and the advent of an æstival temperature has almost ceased to be a menace to infant life. The most fatal season of the year is now the period of the cold winter months, during which catarrhal attacks befall the aged, against which their enfeebled vitality is unable to contend.

PERSONAL.

H.M. The King, as Patron, has been graciously pleased to approve of the appointment of Sir William Bennett, Mr. Herbert Paterson, Mr. James Sherren, Mr. Lockhart Mummery, Mr. Crisp English, Dr. William Hale White, and Dr. Charles Morris, C.V.O., as Honorary Members of the staff of King Edward VII.'s Hospital for Officers, 9 Grosvenor Gardens, S.W., during the period of the war.

H.M. The King has been graciously pleased to sanction the following promotions in, and appointments to, the Order of the Hospital of St. John of Jerusalem in England (August 26th) :—As Knights of Grace: Surg.-Gen. Sir A. W. May, R.N.; Col. J. E. Squire, C.B., M.D., F.R.C.P. (from Honorary Associate), and J. A. Sutherland, M.B.Edin. (from Honorary Associate).

Dr. Montagu Travers Morgan, M.B.Liv., D.P.H., has been appointed Assistant Medical Officer of Health for Herefordshire.

Dr. C. H. G. Ramsbottom, M.D., M.R.C.P., D.P.H., has been appointed Clinical Tuberculosis Officer in the Hampshire County Health Department.

Dr. Thomas Lewis, Assistant Physician to University College Hospital, and Editor of *Heart*, has been selected to deliver the Hester Lectures in October next at the Johns Hopkins Hospital Medical School, Baltimore.

The following consultants have been appointed by the Medical Department, Royal Navy, and in most instances have been detailed for special duties :—Sir Watson Cheyne, Sir William Macewen, Sir Alfred Fripp, Mr. G. R. Turner, Dr. H. D. Rolleston, Mr. G. L. Cheatle, Mr. Raymond Johnson.

CLINICAL LECTURE

ON

" FRACTURES."

By SIR ARBUTHNOT LANE, Bart., M.S., F.R.C.S.,

Senior Surgeon to Guy's Hospital and Emeritus Surgeon to the Hospital for Sick Children.

[Specially Reported for this Journal.]

My experience of the operative treatment of simple fractures leads me to think that probably for the time being its indiscriminate use has done much more harm than good. The operative treatment has on the whole produced, I think, vastly worse results than if the patient had escaped that treatment, or even evaded the surgeon altogether. When you realise that in a series of cases published by Dr. H. B. Thomas in a communication read before the Chicago Surgical Society, March 6th, 1914, entitled " Bone Transplant," in about 48 per cent. there was suppuration necessitating the removal of a plate, the result must be regarded as simply disastrous. One feels inclined to employ an even stronger adjective to express one's views on the subject.

An American surgeon who came over here asked me how many of my plates I removed. I replied, " I don't remove any other than in most exceptional circumstances." In support of this I referred him to the statistics of the Hospital for Sick Children, Great Ormond Street, where any infection of a fracture was unknown, although from the youth of the patients the operations are much more difficult than in adults. He inquired how he could find out how many were removed by surgeons generally. I advised him to go round and see the surgical registrars of the different London hospitals and obtain statistics from them. He did so, and he assured me that the statistics given to him showed that in between 55 per cent. and 7 per cent. of the cases operated upon for simple fractures the plates had to be removed. How far this statement is correct I am unable to say. If it is approximately correct, those cases were examples of a defective or imperfect *technique*, or in plain English of incompetence to deal efficiently with fractures by this method, the failure being entirely due to want of care on the part of the surgeon. It is perhaps fortunate that the public are not aware of this fact. Some surgeons think that all they have got to do is to buy a certain number of instruments and to set to work. A proportion of surgeons would appear to have but an imperfect idea of the mechanics of the skeleton; otherwise you would never see bone-setters flourish as they do.

The bone-setter flourishes because the surgeon is deficient in a certain knowledge. Many surgeons do not realise that if you put a lot of foreign material, such as steel plates and screws, into a fracture or into any part of the body, you have got to exercise vastly more care than if you are doing an ordinary operation, only leaving in the wound a few little bits of silk or gut. That is the cause of infinite trouble. In the first place, the surgeon, sometimes knowing little about mechanics, has not a clear idea how to deal with a fracture when he sees it, and when he does operate he is liable to infect the wound, with disastrous results to the patient.

So far as the principles on which the operative treatment of simple fractures are concerned, I think there are three big laws which one can formulate in regard to influencing the growth of the body. Pressure produces certain changes, strain produces certain changes, and there is a third law, more extraordinary still, that if a new mechanism is useful to the individual or an old mechanism can be altered with advantage, that change may take place. Those three laws are at the basis of the growth of the body and are the foundation of evolution. That (pointing to a lantern view on the screen) is a perfectly normal skeleton of a man who carried barrels on his shoulder; he was a brewer's drayman. The peculiar pressure which he in consequence underwent for a long period of time produced certain changes which you see there. The general principle that nature goes on in attempting to meet a peculiar relationship of the individual to his surroundings is that of economy. If she can help you to do your work with the least expenditure of energy she does it, and you see how she has enabled that man to carry his load easily by converting his normally flexible skeleton into a rigid shelf so that he can do his work by an expenditure of the smallest amount of energy. The result is so marked and efficient that an old coal-heaver can handle a couple of hundred-weight of coal and do it all day long. You try to do it for five minutes and see the result. One curious thing about nature is this, that everything it does to develop this economy of expenditure of energy to help the individual in his particular labour tends to shorten the life of the individual. Take the coal-heaver, for instance. His spine, ribs and chest are all locked. That is all right for the man so far as coal-heaving is concerned, but let him have an attack of bronchitis or pneumonia when he has to depend solely on the expulsive action of the abdominal muscles to expel mucus from his tubes. Everything nature does to try and help us is only useful for a time; in the end it tends to act prejudicially to the interests of the individual.

Take the case of this coal-trimmer (*a*) who stands at the bottom of a hole and throws coal round to various points. In doing that he undergoes certain characteristic and remarkable changes. The man who carries anything on his head gets other changes. We all represent a definite mechanical relationship to our surroundings. Alter your mechanical relationship to your surroundings and you alter the machine. Go on repeating that for many generations and you transmit your tendencies to your offspring; although

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(*a*.) A remarkable example of the manner in which pressure changes in the skeleton may reveal the labour-history of the individual.—*Jour. Anat. and Phys.*, 1886-7, 385-406.

in the individual itself the actuality may not arise.(*a*) All these hard-working people die early simply because they are mechanically depreciated by their occupations.

As pressure produces change, so strain produces ossification in the line of traction. Anybody who has devoted much time to the study of the several occupation changes could recognise, for instance, the scapula of a shoemaker. (*b*)

I think I can best occupy the short time at my disposal by showing you radiograms of fractures taken before and after operation, as I imagine that by this means I can demonstrate the mode of treatment to the best advantage.

This radiogram shows a vertical fracture through the scapula. It traverses the spine near its outer limit. The outer fragment on the scapula is displaced downwards and forwards. The acromion has been torn away from the outer end of the clavicle and a considerable space intervenes between these bones.

Unless the scapula were restored to its original form the man who was a labourer would have been unable to follow his occupation because of the considerable displacement of the shoulder joint.

By cutting down on the fragments of the spine of the scapula which were grasped in strong forceps it was possible to bring them into accurate apposition, in which position they were firmly secured by a steel plate and four screws, which entered the free surface of the spine. Not only was the scapula restored perfectly to its normal form and function but the acromion was brought into its anatomical relationship to the clavicle. The man recovered with perfect function.

In this radiogram the fracture of the scapula was through the surgical neck, and here also the displacement of the outer fragment was considerable.

The fracture was exposed through the axilla. The fragments were placed in accurate apposition and were retained by a plate and four screws secured to the axillary or outer margin of the scapula. The result of operative interference was perfect functionally and anatomically.

This radiogram shows a fracture of the clavicle just outside its centre. There is very considerable downward and inward displacement of the outer fragment. By no means could these fragments be retained in anything approaching accurate apposition and it was of great importance to the man that the leverage action of the clavicle should remain intact and that the shoulder joint should be placed normally.

The fragments were exposed and accurate apposition having been effected they were secured by means of a plate and four screws, as is shown very clearly by this radiogram.

Fractures of the clavicle are very readily dealt with by operation for the reason that the bone is always dense and strong and holds screws very securely, and also because it is very accessible, being immediately beneath the superficial structures.

The frequent presence of comminution adds to the advisability and advantage of operative interference.

The great objection to the operation is the presence of a scar. This only appeals to women. The scar can be made almost imperceptible.

The depreciation that results from an unsatisfactory junction of the fragments in fracture of the clavicle is sometimes very great and usually very appreciable.

This radiogram shows a fracture through the epiphysial line of the upper extremity of the humerus. As is common in these fractures a portion of the shaft has remained attached to the epiphysis.

The fracture was exposed by an incision through the anterior limit of the deltoid made in this situation to avoid damage to the circumflex nerve. The epiphysis was restored to its normal position by means of an elevator. Once the fragments were in apposition, there was no tendency to displacement. The anatomical and functional results were perfect.

This radiogram shows a fracture through the upper part of the shaft of the humerus, commonly called its surgical neck. This variety of fracture always results from a direct injury. The upper portion of the shaft is displaced forwards, inwards and upwards. Perfect reduction by manipulation is usually impossible, while if the humerus is not restored to its normal form its function is impaired in a degree proportionate to the displacement of the fragments on one another.

This fracture was exposed by an incision similar to the last. The very marked overlapping was observed and the fragments being grasped with forceps were so manipulated as to bring the surfaces into accurate apposition. A stout steel plate was then secured to the fragments so that they were immobolised on one another. The result is shown in this radiogram.

This radiogram shows a spiral or torsion fracture of the shaft of the humerus through its centre. The displacement is very great, while the possibility of effecting any sort of apposition of fragments by manipulation of splints is very remote.

Contrast this radiogram with the last. It shows a transverse fracture of the shaft of the humerus just a little lower down. Here, as in the other, an attempt had been made to so call "set" the fragments under an anæsthetic. In both these cases besides the mal-union of fragments which would necessarily result from the employment of the old and usual methods of treatment the risk of the musculo-spiral nerve being involved in the callus was by no means small.

In both instances as shown by these two radiograms the humerus has been restored to its normal function and form by operation and the fragments were secured by means of a steel plate and screws. All risk of damage to the musculo-spiral nerve was also eliminated.

In these as in all operations on fractures of the bones of the arm, great care must be taken to avoid damage to nerves or tendons. This risk is practically a negligible one in the case of the leg.

These radiograms illustrate the common fracture of the lower end of the humerus in young life. The exact position of the fracture varies; in some cases it runs through the junction of the shaft with the growing line while in others a variable amount of the shaft remains attached to the epiphysis. In some cases again only a portion of the lower epiphysis is broken off and displaced.

(*a*) Can the existence of a tendency to change in the form of the skeleton result in the actuality of that change in the offspring?—*Jour. Anat. and Phys.*, 1887-8, 215-224.

(*b*) "The Anatomy of the Shoemaker."—*Jour. Anat. and Phys.*, 1887-8, 593-628.

The objects of the surgeon are to effect accurate apposition of fragments and to avoid the formation of a quantity of callus. The latter is a serious complication in these cases since the fracture traverses the olecranon or coronoid depressions. This is best avoided by keeping the fragments at rest for some time after they have been accurately replaced. Once the fragments are in apposition a retaining medium is very rarely called for. When a portion of the epiphysis is broken off and displaced, it is sometimes necessary to employ a loop of silver wire to retain it when it has been replaced in position. It is always well to avoid any rigid control of a growing line in view of the law I formulated, viz.:—"The rates of bone formation in the several portions of a growing line vary inversely as the pressure."

The seat of fracture is best exposed by a posterior median incision through which the fragments can be replaced in accurate apposition. The surgeon should not be satisfied with any result that is not perfect. This applies equally to all operative treatment of fractures.

The radiograms that you now see represent fractures of the coronoid process, or of part or all of the head of the radius. These fractures call for very careful treatment. Should such a case unfortunately fall into the hands of a surgeon who is satisfied to treat all fractures by massage, etc., a bad result is certain to ensue. Nature resents any movement of such damaged joints, and endeavours to prevent its occurrence by the development of a bridge of bone which extends from the fragment of the coronoid process or radius upwards and backwards to the shaft of the radius. The term "ossifying myositis" has been applied by surgeons to this misdirected effort of Nature which stops pain at the cost of the destruction of the joint.

These radiograms show the condition in an early stage, and this the later stage when the articular surfaces are not only locked by a bridge of dense bone but are united to one another in an osseous junction. In such fractures it is wiser either to remove the broken fragment at once or to keep the joint at rest till the tendency to form callus has completely subsided. In other words wait till Nature has given up trying to help you.

The case which I have just shown you and which is illustrated by these two radiograms is typical and is constantly coming under observation. The patient was a girl, æt. 18. She dislocated her forearm, backwards at the elbow-joint. The dislocation was reduced and the elbow at once massaged for twenty minutes. This massage was repeated on three occasions daily. On the third day an X-ray photograph was taken and it showed a fracture of the head of the radius with displacement of the fragments. The massage was still continued with the result that the range of movement in the elbow-joint became more and more limited. She then came under my observation. The second X-ray photograph which you have just seen was then taken. It shows that a bridge of bone has developed, extending upwards and backwards from the head of the radius through the muscle to the front of the shaft of the humerus. This is the earliest specimen of this condition which I have had an opportunity of observing. Numbers of late conditions as illustrated by this radiogram have come under my care. This shows a complete ankylosis of the joint with abundant bone occupying the angle of the joint.

In such cases a very extensive and difficult operation is required to obtain any sort of movable elbow-joint.

These two radiograms show fracture of the shaft of the radius in its upper third, each presenting considerable displacement of the fragments. This fracture requires very careful treatment because of the distribution of the musculo-spiral nerve in the supinator brevis where it surrounds this portion of the radius. It is perfectly obvious that the restoration of the shaft by the radius to its normal form and function would be dearly bought if paralysis of some of the small muscles supplied by the musculo-spiral nerve ensued. This can always be avoided if the operator takes care to avoid the nerves. An incision of a sufficient length to make exposure of the deep parts easy and effectual is particularly valuable in this fracture.

These radiograms illustrate the effect of operative treatment showing perfect results. These four radiograms illustrate fractures of the olecranon in one case associated with fracture of the coronoid process. As seen in these other radiograms the fragments have been placed in accurate apposition, and have been secured by means of a plate and screws. In some cases two screws are sufficient, while in others four can be employed with advantage.

In the case in which fracture of the coronoid process was associated with that of the olecranon you notice that the fixation of the fragment of the olecranon resulted in the fragments of the coronoid process coming into accurate apposition. The patient who is an enthusiastic golfer tells me that his handicap has not been affected by the injury. When both radius and ulna are broken at about the same level, and there is marked displacement of fragments, it is always necessary to operate, if a good result is to be obtained.

These radiograms illustrate these fractures before operation. They show very considerable displacement of fragments. These other radiograms show the condition of the patient after operation, and you will notice that however severe the injury and however great the consequent displacement of fragments the bones have been restored perfectly and in every detail to their normal shape and function. Fracture of the lower portion of the shaft of the radius is almost always best treated by operation. When there is much displacement it is often very difficult indeed, if not impossible, to replace the fragments in accurate apposition. On the other hand the bone is subcutaneous here and is readily accessible so that the fragments may be easily replaced and secured by an operation. As in all operations for simple fracture the shorter the interval that is allowed to elapse between the receipt of the fracture and the operation for its restoration the better. This is true in an inverse proportion to the age of the individual. If there is much displacement of fragments and the displacement is not dealt with for a time, Nature makes great efforts to meet the situation by arranging for the laying down of a large amount of callus. The accurate replacement of fragments after an interval of time does not prevent the subsequent deposit of much of this callus though the necessity for its formation has ceased to exist. The resulting deposit of bone may be a great inconvenience and may delay very materially the restoration of the bone to its normal form and function. This is a matter of great importance. These radiograms I am now showing you illustrate my meaning very clearly, showing the disadvantages of delayed operation. In the new-born babe who occasionally sustained a fracture during its exit every hour counts. Interference should be prompt. Such operations being very difficult at this age owing to the smallness of the bones, should not be undertaken except by those who are very familiar with their performance.

This radiogram showing fracture of the humerus at birth with extensive malunion and paralysis of the musculo-spiral nerve illustrates the disadvantage of delay. This second radiogram shows the humerus restored to its normal form. The musculo-spiral nerve was freed from the callus and the paralysis was cured. As some time had elapsed since the birth of the child the bones had softened and the operation was performed with great difficulty.

This radiogram shows a fracture of the femur of an infant. The bone is seen to be broken transversely an inch below the lesser trochanter. The displacement of fragments was very great. The operation was performed two days after birth, and you see the result in this radiogram which shows the femur restored perfectly to its normal form.

I regret that the time at our disposal prevents my showing you the conditions present in fractures of the leg and the mode in which they can be dealt with perfectly successfully by operation. The advantages of an operation over any other form of treatment are :—

(1) That the patient is at once relieved from pain, since all movement of the fragments is stopped.

(2) He is freed from the tension and discomfort due to the extensive extravasation of the blood in the tissues, and from the inflammation that follows this.

(3) The duration of his incapacity to work is as short as possible since union of the fragments is by first intention, no callus being required.

(4) The bone being restored to its normal form the patient suffers in no way from the injury to his mechanics which he had sustained.

(5) Since the fragments are united securely by one or more strong steel plates no controlling apparatus is required so that the patient can move the joints in association with the broken bone spontaneously from the operation and in consequence the prolonged convalescence owing to the stiffness which follows the use of splints, plaster cases, etc., is altogether avoided, and

(6) The surgeon knows that by an operation he has secured the fragments firmly in accurate apposition and that he has no reason to dread the patient having his broken bone radiographed as soon as he is able to get about, and the necessity which may possibly arise to consult a solicitor to safeguard him against the results of his treatment as exposed to the patient by the photographs he obtains from the radiographers.

The only thing that is necessary is that the surgeon shall do his work efficiently.

ORIGINAL PAPERS.

THE RELATION OF THEORY AND PRACTICE IN THE OPERATIVE TREATMENT OF GENITAL PROLAPSE. (a)

By HENRY JELLETT, M.D.Dub., F.R.C.P.I.,
Master of the Rotunda Hospital, Dublin.

Mr. President, Ladies and Gentlemen,—My first duty is to thank you for the great honour which you have done to the Irish School of Medicine, and to that branch of it which is represented by the Rotunda Hospital, in inviting me to deliver this address. I can only say that I know the honour is appreciated by all connected with the Dublin School of Obstetrics and Gynæcology. I have next to thank you on my own account, and to express my pleasure at the great honour which you have done me personally. I cannot tell you how great a pleasure it is to me to have been able to come to this great country, even though the shortness of my visit enables me to see only the fringe of it. Already, I know that I shall carry back the very pleasantest recollections, and I can only hope that I shall leave some pleasant recollections behind.

The subject which I propose to take as the basis of my address is one which has interested me for a number of years, and which must have the greatest interest for every operating gynæcologist, namely, "The relation of theory and practice in the operative treatment of genital prolapse." It is a subject on which a volume might be written, and yet it has not always received the close attention of the operator. I think there are few subjects in operative gynæcology in which men are more inclined to be led by the fashion of the moment, and to adopt such fashion without due consideration of its ultimate results, and without attaching sufficient importance to its anatomical effects.

I trust I have not infringed the spirit of my directions, which were to deliver an address on obstetrics. Personally, I regard obstetrics and gynæcology as more or less conjoined, but my inclinations lie more in the direction of gynæcological practice. I have therefore assumed that I may translate the word obstetrics in its freest sense. Even if one wished to divorce gynæcology from obstetrics one can say of the subject I have chosen, that although prolapse may be cured by the gynæcologist, it is, alas, often produced by the obstetrician.

I think that in the past the frequent failure of the operative treatment of prolapse has been due to two causes. The first of these is an insufficient anatomical knowledge of the relations and supports of the uterus, and the second is a desire to find a panacea which will be suitable for every case. The second cause is directly the result of the first. One can quite understand, for instance, how the routine treatment of uterine prolapse by ventral fixation appeals to one who does not recognise the abnormal strain to which a uterus once prolapsed is subjected in the future, and similarly one can understand the attitude of those who habitually recommend hysterectomy on the one hand, or extensive vaginal plastic operations—such as colporrhaphy and perineorrhaphy—on the other.

(a) Being the Address on Obstetrics delivered at the Annual Meeting of the Canadian Medical Association, held at St. John, N.B., on July 8th, 1914.

It is such an obvious truism that if one removes the uterus, it can no longer become prolapsed, that it is little wonder some gynæcologists consider hysterectomy can cure prolapse. Again, it is so obvious that a prolapsed uterus ought to descend through the vagina, and cannot do so if the vagina is markedly narrowed that it is not strange that other gynæcologists think colporrhaphy and perineorrhaphy alone can cure prolapse. While as to ventral fixation, what is more plausible than to think that once the fundus of the uterus is fastened in an irremovable position to the abdominal wall, by no possibility can prolapse occur again? Yet each of these reasonings is based on fallacy. The extirpated uterus has prolapsed once and for all, and is gone, but that does not prevent subsequent prolapse of the vagina, and genital prolapse does not consist of prolapse of the uterus alone. Descent of the uterus through the vagina can be prevented by a narrowing plastic operation, but that does not prevent the vagina as a whole from becoming inverted. The fundus of the uterus can be moored permanently to the abdominal wall, but that does not prevent the uterus elongating until its cervix and the vagina again appear outside the vulva. One might multiply other examples, but there is no need.

There are two cardinal points that one must remember in considering the treatment of prolapse. The first is that the exact lesions present differ to a very material extent in different cases. The second is that any treatment to be successful must follow such lines as enable us to alter and modify its details in order to suit the special lesions and complications of each individual case. Each and every one of these conditions will come under the head of genital prolapse, with the exception, perhaps, of the case of simple vaginal hypertrophy of the cervix. Here, although the cervix may appear at or outside the vulva, still the condition is not primarily prolapse, but one is justified in regarding all the other conditions as phases or varieties of prolapse, each of which will require differences in its operative treatment. With these points in one's mind, we come to the bedrock of all operative measures, namely, the anatomy of the pelvis, and when we understand it thoroughly we shall perhaps be in a suitable position to criticise older methods, or even to devise new ones.

I begin, therefore, by calling your attention to certain points of importance in the

PHYSIOLOGICAL SUPPORT OF THE UTERUS AND VAGINA.

and I do it in the shortest manner possible. In one respect I ask you to give me your consideration. There is a considerable amount of divergence of opinion in regard to many of the points which I bring before you, and I ask you to remember that, as time will not permit of a discussion of these differences, I bring before you what I regard as facts, and what are my own deductions from them. It is no wonder that much divergence of opinion exists in regard to matters which at first sight appear to be so very capable of direct proof. There is no one so coy as the anatomist who comes to deal with pelvic anatomy, and the reason is not far to seek. I understand that the intelligent anatomist who is a good dissector can demonstrate to his own satisfaction, and to the satisfaction of his audience, practically any ligament or structure in the pelvis that he chooses for the moment to create. He can harden connective tissue with formalin and turn it into ligaments; he can exhibit muscles which in the living are incapable of demonstration; and he can resolve strong fibrous bands into succulent connective tissue. I hope my audience will not think from this that I want to undervalue the work which has been done in pelvic anatomy. It is far from me to desire to do any such thing, but I want to impress on you the great difficulty, if not impossibility, of demonstrating in the dissecting-room subject the relations and structures of the pelvic floor as they are found in the living, and especially as they are found when modified as a result of the injuries of labour. The knowledge of anatomy is essential to the treatment of prolapse, but it is a knowledge which must be gained not alone in the dissecting room, but in examination of the living.

The two organs which are primarily concerned in genital prolapse are the vagina and the uterus, while secondarily, we find that prolapse of the bladder is very common, and that prolapse of the rectum sometimes occurs.

The vagina, under normal conditions, is kept in place by three different structures. First, it is supported below by the converging bands of the levator ani muscle, with the coincident help of the investing fascia. Secondly, it is fixed to the pelvic wall by the vaginal suspensory ligament, which is a fold of the pelvic fascia, usually described as springing from the pelvic wall in the neighbourhood of the ischiatic spine, and passing inward and slightly forward to the side of the vagina, and slightly posterior to a coronal median plane. I do not think, however, that this description is quite accurate, as I shall presently show. Thirdly, it is supported by its attachments to the cervix, and by the parts of the endo-pelvic fascia, which have an insertion both into the cervix and into the upper part of the vagina.

The uterus is supported (I refer now to direct support) by its vaginal attachment, by the utero-sacral ligaments, and by the different layers of the endo-pelvic fascia which pass into it laterally and anteriorly. Its indirect support I will discuss in a moment.

Each one of these structures which I have mentioned can be demonstrated clinically, and can be definitely proved by any close observer to be responsible for the utero-vaginal support. It is an easy matter to recognise the relation of the levator ani muscle to the lower part of the vagina, and to see how the approximation of its lateral bands support both the perineum and the lateral vaginal walls. The suspensory vaginal ligaments are also capable of easy demonstration, and so are the utero-sacral ligaments. To demonstrate them, one finger is passed into the rectum, and a bullet forceps is applied to the point of the vagina or uterus at which one wants to demonstrate the ligamentous attachment. Suppose, for instance, the forceps first catches the cervix. As one draws it down, one feels the utero-sacral ligaments become tense at each side, until finally their tension is sufficient to resist further descent of the cervix. If one then applies a second forceps to the upper part of the vaginal wall at the junction of the lateral and posterior wall and pulls upon it, the finger in the rectum will feel distinctly the fascial band which runs to that particular point becoming tense. If the forceps is then applied successively to a number of different points lower in the vagina, and on the posterior wall, and traction is made on each in turn, one can demonstrate that, beginning above at the utero-sacral ligaments, and ending below about where the levator muscle crosses the vagina, there is a practically continuous ligamentous connection between the cervix and the posterior vaginal wall, and the posterior pelvic wall, and that this band is sufficiently strong to prevent more than a certain amount of displacement of the cervix or vagina by traction. If the pelvic organs are hardened in formalin, either while still in position, or after complete removal of the entire contents from the body, and if they are then cut in a series of horizontal slices, the position of the band will be very clearly seen. Such a method of examination, namely by horizontal slicing of the pelvic contents, also demonstrates a very interesting and I think very important point, namely, that the utero-sacral ligaments apparently form the upper limit of this band, and that from a practical point of view one may consider the cervix and vagina as fixed to the pelvic wall by two strips of fibrous tissue, each of which begins above at the level of the utero-sacral ligaments, and extends down as far, at any rate, as the levator ani muscle.

If anyone requires further demonstration of the existence and importance of this band, it will be obtained during the course of Wertheim's hysterectomy. In this operation the last step in the freeing of the uterus is the division of the utero-sacral ligaments, and this allows the uterus to be drawn to a slightly higher level in the pelvis. One then has to cut firm fibrous bands which lie below the utero-sacral ligaments, and which run between the vagina and the posterior pelvic wall, and, when they have been cut to a depth of from a quarter to three-quarters of an inch, the vaginal fornices move forward, and with the uterus can be drawn to a considerably higher level, and one is able to reach points which up to this were inaccessible.

The remaining direct supports of the uterus and vagina are formed by the endo-pelvic fascia, and are not so easily demonstrated. This fascia forms two distinct sets of bands, one set of which passes anteriorly and forms the anterior false ligaments of the bladder, while the other set pass out laterally, surrounding and beneath the uterine vessels, and are known as the cardinal ligaments of the uterus, or as Mackenrodt's ligaments. The latter pair, as a rule, can be clearly demonstrated in cases of prolapse where they have become lengthened. It is, however, difficult to estimate the actual amount of support which they give normally to the uterus.

The foregoing constitute practically the entire support of the uterus and the vagina, with the exception of the ligamentous attachment of the lower part of the anterior vaginal wall to the urethra, and through it to the posterior surface of the pubic bones. The indirect support of the uterus is, however, also a matter of considerable importance. This support comes from the pelvic floor, and is mainly the result of the fact that the uterus lies horizontally in the pelvis, with its long axis almost at right angles to the axis of the vagina. It thus offers the maximum surface of resistance to the pelvic floor, while the non-coincidence of its axis with the axis of the vagina prevents any tendency to its descent through the latter.

We must now see how the injuries of labour affect both the direct and the indirect supports. The first and most obvious change is in the relation of the levator ani to the vagina. Deep tearing of the perineum destroys the slight attachments of the muscle to the central point of the perineum, and so allows its lateral bands to diverge outwards, while actual tearing of the muscle itself destroys the continuity of its inner edge. The result is that the lateral bands are widely separated and that there is nothing to prevent the anterior or the posterior vaginal wall from bulging directly down through the vaginal orifice. Once the support of the lower part of the vagina is lost, there is a tendency for the middle part also to descend, because the posterior and lateral walls, instead of resting on the levator muscle, are unsupported, and have their pull transmitted directly to the suspensory fascia which I have described. This fascia must be a very potent factor in supporting the vagina under normal conditions, but it is apparent that it does not possess great powers of resisting a continuous strain, and that when such strain comes upon it, it stretches, thereby allowing the middle portion of the vagina to descend. Clinically, however, I do not think that one often sees this progressive inversion. What happens, rather, is that first the lower part of the vagina protrudes, that then the vaginal fornices lose their support and descend, and that finally, as a result of continued traction, the middle portion descends also.

The earlier descent of the upper part of the vagina is due to the alterations that occur in the supports of the uterus, alterations which usually result in the uterine prolapse, so to speak, overtaking the vaginal prolapse, and eventually preceding it. The first direct step in the production of uterine prolapse so far as the uterus is concerned is backward displacement. This may occur as a result of the traction of a prolapsing anterior vaginal wall on the cervix, a traction which tends to pull the anterior cervical wall lower in the vagina, so carrying the body of the uterus back, or it may be due to simple falling back of a large uterus as a result of general relaxation of its ligaments. Whichever it is, the effect is very much the same. The axes of the uterus and of the vagina tend to come into coincidence, and the resistance which the uterus offers to its own descent is altered from a surface corresponding in size to its anterior wall to a surface represented by a horizontal cross-section. In other words, practically all the support furnished to the body of the uterus by the pelvic floor is lost, and the weight of the uterus is thrown directly on to the utero-sacral ligaments and the different parts of the endo-pelvic fascia. The utero-sacral ligaments are strong bands, as can be easily proved clinically, but, like the vaginal suspensory ligaments, and indeed like all other fascial ligaments, once a direct pull comes on them, they yield. Their normal function is probably to keep the cervix in its proper relation to the posterior pelvic wall, and by so doing to keep the body of the uterus in front, and, once they receive the entire uterine weight, they fail, and stretch. Once they fail, the weight of the uterus is transmitted directly to its vaginal attachments, and to the endo-pelvic fascia, both of which are entirely unsuited to resist a direct strain. They too eventually yield, and so with the uterus the upper portion of the vagina comes down. It is probable, then, that the most common sequence of events is, first, the prolapse of the lower portion of the anterior vaginal wall, with or without an accompanying prolapse of the corresponding part of the posterior wall, then the prolapse of the uterus and the upper part of the vagina, and lastly, the prolapse of the middle portion of the lateral and posterior vaginal wall. This order may, however, be altered, and, as one sees in certain cases not associated with labour, the uterus may be the first part to descend, the inversion of the vagina being directly consequent. In each case the condition of complete prolapse with invasion of the vagina is established.

There is a condition frequently associated with genital prolapse which probably affords an indication as to the order in which the prolapse has occurred. I refer to hypertrophy of the supravaginal portion of the cervix. This hypertrophy is not confined to the portion of the cervix between the insertion of the utero-sacral ligaments and the vagina, but it is most commonly situated there, and it seems to indicate that there has been a conflict between the pull of a prolapsing vaginal vault below and the support afforded by the resisting utero-sacral ligaments above. It is consequently reasonable, I think, to suppose that when one finds such hypertrophy present, the vault of the vagina has been the first part to prolapse, and the body of the uterus the last. In some cases, indeed, one actually sees this stage before uterine prolapse has occurred, that is to say, the utero-sacral ligaments are of their normal length, the body of the uterus is in a practically normal position, the vagina is inverted and the cervix is at the vulva, being enabled to come to this position as a result of its supra-vaginal hypertrophy.

So far I have not referred to the alteration in the position of bladder that accompanies genital prolapse. It is the direct result of the pull of the anterior vaginal wall and of the yielding of the ligamentous attachment of the base of the bladder and of the urethra to the posterior surface of the pubis. It may be the first step to follow in injury to the pelvic floor, or on the other hand, it may be one of the later steps that result from the primary descent of the uterus. Once it has occurred, its action in hastening complete prolapse is considerable, because it leads to straining and increased intra-abdominal pressure during micturition, and because it causes direct traction on the cervix of the uterus.

So much, then, for theoretical considerations. The more one studies prolapse, the more one sees how in its complete stage it is the result in most cases of an initial fault, which, by altering the normal strain to which the suspensory mechanism of the uterus is intended to be subjected, throws them out of sympathy with one another. This is the most essential point to grasp in planning a successful operation for prolapse, because just as the prolapse follows initially a single fault, so it will tend to recur after operation if a single weak point is left. Ventral fixation alone failed because the cervix was free to drop into the axis of the vagina, and so again to bring a direct pull on the utero-sacral ligaments. Vaginal plastic work, alone, failed because the descending uterus was capable of again dilating the vagina and forcing the muscles apart. Hysterectomy failed because it took no account of the fixation of the vaginal vault.

We have now to see conversely if, when once prolapse has resulted, it is possible not alone to bring back the different structures to their normal relation, but also to abolish all abnormal strains which may be thrown upon them.

I think that one may consider rational prolapse operations as consisting of three parts:—First, the restoration of the normal direct support of the uterus and vagina so far as possible; secondly, the placing of the uterus in such a position that it offers the maximum resistance to descent; thirdly, the removal of complications and associated conditions, the result of prolapse. I will deal with these three parts separately.

THE RESTORATION OF THE NORMAL DIRECT SUPPORT OF THE UTERUS AND VAGINA.

We have already seen that these supports are four in number:—First, the utero-sacral ligaments; secondly, the endo-pelvic fascia; thirdly, the suspensory ligaments of the vagina; and fourthly, the levator ani muscle. The shortening of the utero-sacral ligaments with a view to restoring their normal action on the cervix is advisable in all cases in which they are stretched. It is essential when one is dealing with a small uterus, because such a uterus cannot be made to offer sufficient resistance to its own descent unless its direct supports are also re-constituted. Wertheim was, I think, the first to recognise the importance of shortening these ligaments, and his operation is carried out by the vaginal route, but through the peritoneal cavity. I have also described a method of shortening the ligaments through the vagina at their point of attachment to the uterus, and this is the method which I usually adopt, as I consider it to be more easily worked in with the other stages of a prolapse operation than is Wertheim's method. It is unnecessary to enter into its details here, though I hope, if time permits, to say a word about them later. It is, however, necessary to say why utero-sacral shortening is so essential in the small uterus, and the reason, if one thinks of it, is obvious. In a moment I shall go on to say that I consider Wertheim's interposition operation to be one of the best methods of increasing the resistance of the uterus to its own descent. In this operation, the uterus is placed between the anterior vaginal wall and the bladder. If the uterus is of sufficient size, it is then directly supported by the levator ani muscle, as well as by the vaginal wall, and, furthermore, since it is too large to allow its body to remain in position while the cervix rotates round it and comes down again to the vulva, the result of the operation is usually excellent, If on the other hand, the uterus is very small, the cervix if free, can drop down through the vagina, pulling the remainder of the uterus after it. If, however, we fix the cervix by shortening the utero-sacral ligaments, it cannot rotate round the body and drop, while, at the same time, the strain on the shortened ligaments is slight, and they do not tend again to elongate.

The shortening of the band of endo-pelvic fascia, known as Mackenrodt's ligaments, has also been advised in cases of prolapse. Some of the advocates of this procedure support their views by saying that Mackenrodt's ligaments must give a great deal of support to the uterus, because their division during the course of Wertheim's hysterectomy allows the uterus to be pulled to a much higher level. This argument, however, in my opinion, is based on an inaccuracy. It is not the division of Mackenrodt's ligaments that allows the uterus to be pulled to a higher level, but rather it is the division, first of the utero-sacral ligaments, and then of the vaginal suspensory ligaments, as I have already mentioned. At the same time, although I do not believe that Mackenrodt's ligaments have all the effect on the uterus which is sometimes attributed to them, I think that when they are shortened they are capable of adding to the general support of the cervix. Such shortening, to be effective, must be considerable, and if it is to be a safe procedure, it must be done with the greatest care, because, as we know, this part of the endo-pelvic fascia is pierced by the ureters, and if it is drawn out too far I think that it is quite possible that kinking of the ureters may result. A moderate degree of shortening is always brought about when supra-vaginal amputation of the cervix is performed, in consequence of the insertion of these ligaments into the upper part of the vagina as well as into the uterine cavity, and, personally, I am not inclined to try to shorten them to a greater extent than is done in this way.

The support given by the vaginal suspensory ligaments is of the greatest importance, and if it was feasible to restore them to their original condition, such a step would be most desirable. At the present time, however, I am not aware that any operator has suggested any effective method of dealing with these ligaments, and for my own part, I can only say that I do not see that it is likely that such a method can be brought forward, owing to their position. The nearest approach to shortening them is the fixation of the vault of the vagina to the peritoneum covering the anterior surface of the sacrum, as was suggested by Stanmore Bishop some years ago. The only objection I can see to this procedure is that it necessitates an abdominal incision, and this adds on rather too much to an already prolonged operation. Personally, I have not performed Bishop's operation, and I do not think that it has received from anyone the attention which, on theoretical grounds at all events, it deserves. Further work on the fixation of the vagina is very necessary, and, if it is carried out, it is possible that an effective procedure for the restoration of the important fascial connection of the posterior vaginal wall may be devised. For the moment, however, we must consider that our efforts to restore the direct support of the vagina break down at this point, and that we are not capable of restoring effectively the vaginal suspensory ligaments.

The restoration of the levator ani muscle to its proper position is, on the other hand, a matter of ease and simplicity. It is an essential part of all perineorrhaphy operations, and is a step of the utmost importance in prolapse operations. I do not propose to enter into the method of suturing it on the present occasion, but will confine myself to saying that it is always possible and usually easy, except when the muscle has practically disappeared on one or both sides in consequence of atrophy or excessive retraction.

THE PLACING OF THE UTERUS IN SUCH A POSITION THAT IT WILL OFFER THE MAXIMUM RESISTANCE TO ITS OWN DESCENT.

We have seen that under normal conditions the uterus lies practically horizontally in the pelvis, and that its resistance to descent may be expressed as that of a surface corresponding in size to the anterior surface of the uterus. On the other hand, when the uterus comes into a position of retroversion, usually the first stage of prolapse, the resistance that is offered may be expressed as that of a surface the size of a horizontal cross-section of the uterus. Furthermore, when in a position of retroversion, the uterus descends into the pelvis as a wedge, point downwards, and so readily forces or dilates a way for itself through or between any opposing structures. Finally, when the uterus offers a maximum resistance to its own descent, not alone does this increased resistance directly hinder descent, but it also lessens the strain which is thrown on the direct supports, and this is a most important matter. I do not think that it is possible by any means to reconstruct the direct supports in such a manner that they will resist the entire strain of the unsupported uterus, but if this strain can be brought back to its normal limit, then, in association with the reconstituted direct support, the tendency to prolapse will be overcome. The simplest method of bringing back the resistance of the uterus to the normal is by fastening the fundus in a position of anteversion. This can be done either by the shortening of the round ligaments or by the direct suture of the uterus to the abdominal peritoneum as is done in ventral suspension, and, as neither of these procedures in any way interferes with a subsequent pregnancy, one or other of them is indicated in the case of women still within the child-bearing period. It is, however, possible to increase the resistance of the uterus beyond the normal, but such a course inevitably affects detrimentally a future pregnancy, and may lead to the most serious results. Therefore, it is obviously only permissible in women who are past the child-bearing period, or in women in whose case there is no objection to producing an artificial sterility. The most important and the most reliable of such operations is undoubtedly Wertheim's interposition operation, and I have no hesitation in saying that it is the most valuable procedure which has been introduced of late years, for the cure of prolapse, because, not alone does it increase the resistance of the uterus to its own descent, but it also helps to fix the vagina in position, and to remove the prolapse of the bladder that both complicates and tends to perpetuate vaginal prolapse.

I have stated briefly of what the operation consists, namely, the bringing of the body of the uterus to lie between the bladder and the anterior vaginal wall. In this position, it is entirely extra-peritoneal, and so, necessarily, could not undergo proper development during pregnancy. The bladder is brought to lie wholly above it, and, provided the size of the uterus is sufficient, and that the cervix is fixed by the shortening of the utero-sacral ligaments, I consider the result cannot at present be surpassed. On the other hand, where the uterus is small, and the cervix is not fixed, recurrence of the prolapse is very liable to occur.

We now come to the third part of the rational prolapse operation,

THE REMOVAL OF COMPLICATIONS AND OF CONDITIONS ASSOCIATED WITH PROLAPSE.

There are a number of conditions which are either the direct result of uterine prolapse, or one or more of its predisposing causes. In the cervix we may find hypertrophy—vaginal or supra-vaginal, so-called erosion, true ulceration, and laceration. In the body of the uterus we find endometritis and the different conditions which are usually grouped under the head "metritis" and which lead to uterine enlargement, and tumours such as myomata. In the pelvic and abdominal cavity we find again tumours arising either in the uterine appendages or from other organs, and ascites, while, lower down, we find very frequently prolapse of the bladder, more rarely prolapse of the anterior rectal wall, and, most commonly of all, perineal laceration. It is obvious that these conditions must be removed if a successful result is to be obtained, and it is only necessary to say a few words about them. Erosion, laceration, and hypertrophy of the cervix are best treated by amputation, either vaginal or supra-vaginal, according to the nature of the case. Endometritis is treated by curetting. Uterine tumours and abdominal pelvic tumours call for removal, while increase in the size of the uterus, apart from tumour formation, calls for reduction in its size by the amputation of a wedge-shaped portion from the body. This procedure is particularly necessary if Wertheim's interposition operation is to be performed, and, if it is omitted, trouble is likely to occur during the operation, owing to the impossibility of providing sufficient vaginal mucous membrane to cover the large uterine body, and also later, owing to the pressure which the large uterus causes at the lower part of the vagina. In such cases, the excision of a wedge-shaped portion of the body is essential, and does not add much to the length of the operation. Prolapse of the bladder is cured whenever the interposition operation is performed, and when the latter is contra-indicated, it can be cured by the performance of anterior colporrhaphy, provided care is taken to push the displaced bladder back into its proper position before suturing the edges of the vaginal mucous membrane. The cure of a prolapsed rectal wall is directly associated with the cure of perineal laceration, and as this operation involves the suture of one of the direct supports of the vagina, namely, the levator ani muscle, I have already referred to it in its proper place.

Mr. President, Ladies and Gentlemen,—I have tried to place before you the theories on which I think the proper treatment of uterine prolapse must be based, and to indicate briefly the manner in which one transforms them into practice. To suggest that the result of operating along these lines is uniformly successful would be equivalent to saying that we had reached finality, and this is very far from being the case. All one can say is that we are beginning to adopt measures because of their probable permanent result, as opposed to measures which merely give a temporary benefit. There is, however, much room for improvement. So long as the posterior vaginal wall is left, as it is at present, with its supports in an imperfect condition, so long must operative procedure be defective. There are other points, too, in which improvement must come. The interposition operation is excellent in a suitable case, but it is incompatible with pregnancy. The restoration of the pelvic floor is in most cases effective, but it may be again destroyed during a subsequent labour. The very means which we adopt to reduce an enlarged uterus to a normal size may subsequently result in producing uterine atrophy, and so in removing the most effective part of the modern prolapse operation, namely, the placing of the uterus under such conditions that it resists, not alone its own descent, but the descent of the structures by which it is surrounded.

I have thanked you on my own behalf for the honour you have done me, and I could only wish that, for the reputation of the school which I represent, you had selected one who was more suited to put before you some of the problems of modern obstetrics and gynæcology, and their solution.

ACQUIRED AND HEREDITARY SYPHILIS.

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[Specially Reported for this Journal.]

It is generally supposed that heredo-syphilitics cannot contract syphilis *de novo*, and this view is not confined to the laity, indeed it is shared by certain practitioners. Instances of this are by no means rare. Here is one under my own observation. A gentleman whose son had just finished his college course informed the latter that he had had syphilis in years gone by, and recommended him to mention the fact to any medical man to whom he might have occasion to apply by reason of venereal disease in order to prevent their falling into error. This may be taken to mean that he was under the impression that the syphilis which he had contracted before the birth of his son protected the latter against infection. This idea must have been firmly anchored in his head for him to undergo the humiliation of communicating the fact to his son. Tarnowski relates a similar instance. The patient in question was suffering from manifest syphilis calling for a prolonged course of treatment, but this the patient absolutely refused, saying that he had not been with a prostitute for at least twenty years, and had on several occasions had exactly similar ulcers which had healed up without trouble. Anyhow, he added, he could not have contracted a fresh infection seeing that his father had had syphilis, and that his birth was subsequent to the paternal infection. He was firmly convinced of his invulnerability on the strength of what his father had told him, and later on, he said, he had had plenty of opportunities to satisfy himself of the impunity of connection with syphilitic women.

The persistence of this error is due to the fact that the question of syphilis being acquired by heredo-syphilitics is never properly formulated. There are degrees in heredo-syphilis which are not taken into account. We talk *en bloc* of heredo-syphilitics without allowing for the categories which nature has established according to the virulence of the lesions which these subjects present.

The question was for the first time postulated clearly and categorically by Professor Gaucher in 1903. In one of his clinical lectures he showed that it is only in certain conditions that inherited syphilis affords any protection against infection. In speaking of inherited syphilis we must be careful to specify the form in which it was manifested. There is considerable difference between a subject of inherited syphilis who is dystrophic, presenting dental lesions and one who displays the secondary and tertiary accidents of inherited syphilis. It is therefore indispensable to subdivide these cases of inherited syphilis into several groups before we start discussing the degree of immunity conferred by parental syphilis towards subsequent direct infection.

In the following year Professor Gaucher elaborated a classification of cases of heredo-syphilis according to the different clinical types and the degree of virulence of the transmitted disease. In describing the manifestations of inherited syphilis in living infants born at term he pointed out that the disease may give rise to various manifestations throughout their entire existence, because hereditary syphilis does not merely mean congenital syphilis or infantile syphilis, but comprises all the accidents dependent on the transmitted disease from birth onwards.

We require to classify these multiple manifestations in order to study them as a whole. They have been placed in two groups: (1) the manifestations of what has been termed early hereditary syphlilis; (2) late manifestations of hereditary syphilis. This classification is not quite accurate because, in the so-called early hereditary syphilis, we get lesions of very different standing. In cases of premature delivery, for instance, we may meet with certain fœtus which are born with dystrophies which are the delayed lesions of a distant, attenuated infection, while others come into the world with generalised lesions of secondary syphilis. To retain this classification we should have to specify that the symptoms of syphilis occurring immediately after birth or during the first few months of life are of different standing, that there may be hereditary, secondary or tertiary accidents, parasyphilis and dystrophies. Professor Gaucher classifies them as follows:—1st degree: Secondary heredo-syphilis, which resembles in respect of its manifestations the acquired secondary syphilis of the newborn. This is what Fournier calls "decapitated" syphilis, which, except for the different origin and the absence of a chancre, presents all the features of secondary acquired syphilis with which it may be assimilated. 2nd degree: Tertiary heredo-syphilis, an attenuated form of syphilis presenting tertiary lesions which are generally the delayed manifestations of a syphilis that is on the decline. 3rd degree: Quinary heredo-syphilis, represented by manifestations of what we may call dystrophic hereditary syphilis, in the shape of congenital malformations developed *in utero* under the influence of parental syphilis and caused by the disturbance of nutrition and development entailed by the infection.

These four main divisions enable us to approach the question of syphilis acquired by heredo-syphilitics under the various aspects in which it may present itself. They establish clearly enough that heredo-syphilitics do not all receive from their parents an infection identical in virulence, and they enable us to grasp the probability that the immunity conferred by reason of parental infection cannot be the same in all cases, in fact that there are "degrees of wickedness." I will now discuss each of these categories separately from the point of view of the protection afforded to the subjects in each.

Before discussing acquired syphilis in heredo-syphilitics properly so called, we must enquire how the descendants of syphilitic parents who have never presented any signs of heredo-syphilis behave in respect of acquired infection. An infant born healthy, of syphilitic parents, is not, as a matter of fact, a heredo-syphilitic in the ordinary acceptation of the term since he has not inherited any pathological strain. He is not syphilitic and cannot therefore have inherited any degree of immunity to syphilitic infection.

Quinary heredo-syphilis manifests itself by dystrophies—the characteristic dental anomalies, skeletal dystrophies such as the Olympian forehead, the arched palate, the natiform cranium, dystrophies of other organs, *e.g.* marginate exfoliative glossitis and squint, the importance of which in the diagnosis of heredo-syphilis has been worked out by Professor Fournier.

Quaternary heredo-syphilis comprises the so-called para-syphilitic affections such as hydrocephalus, juvenile tabes and infantile general paralysis.

I have collected some fifty cases of acquired syphilis in quaternary and quinary heredo-syphilitics. This means that in these two groups the individuals behave exactly like normal subjects when exposed to the infection of syphilis. This is readily explained by the attenuation of the virus of the inherited syphilis either on account of the length of time that has elapsed since the parental infection or the effects of specific treatment. We may therefore conclude that quaternary and quinary heredo-syphilitics are liable to contract syphilis in the same way and with the same ease as the normal individual.

The tertiary manifestations of the heredo-syphilitic differ in no essential particular from similar manifestations in acquired syphilis. I was able to bring together in my thesis sixteen instances of this class, two of them under my own observation and the others published by syphilographers of renown, such as Hutchinson, Merkel, Wolff, Lang, Emery and Jullien.

These cases are rare but they are unquestionable, and I think it must be conceded that under certain circumstances, when the virulence is much attenuated, tertiary heredo-syphilitics are liable to contract syphilis.

To talk of acquired syphilis in the subjects of secondary heredo-syphilis is to raise a question involving doctrinal conceptions and problems of general pathology which I shall not attempt to solve. It opens up the whole question of the possibility of reinfection. "What one would like to see," says Professor Fournier, "would be an hereditary syphilitic presenting the accidents of secondary syphilis at birth who, in later life, contracted syphilis. Personally I know of no such instance."

I have only been able to find one instance in medical literature of syphilis acquired in a subject who presented the accidents of secondary heredo-syphilis, *viz.*, a case reported by W. Taylor, and it would not be safe to dogmatise on the strength of this single observation in favour of the possibility of the reinfection of syphilis.

It follows that although syphilis in the form of tertiary heredo-syphilis does not always afford immunity against reinfection, inherited secondary syphilis, true "decapitated" syphilis, does confer that immunity, and that in cases in which syphilis was acquired by the subjects of secondary heredo-syphilis this would really amount to syphilitic reinfection.

CLINICAL RECORDS.

A CASE OF RUPTURED UTERUS FOLLOWED BY RECOVERY.

By THOMAS BARRY, M.D., B.C.H., D.P.H.,
Thurles.

On July 17th, at seven in the evening, I was called to see Mrs. C., a farmer's wife, and got a history that she had had six children previously, all born without difficulty or even the attendance of a professional nurse. She was at work as usual the previous day, when pains came on about 6 p.m. A nurse was obtained, who remained about three hours and left as the pains ceased. She was again called at 8 in the morning, as the pains had returned. They persisted at intervals until two in the afternoon, when they ceased altogether, after which the patient got gradually weak, and I was sent for in the evening at seven o'clock. The account given was that at no time was the labour severe, nor was there any sudden internal pain or sensation of "something giving way," which is commonly described in cases of rupture of the uterus.

On examination I found the patient in a very collapsed condition. The face was pale and drawn; the pulse rate was 160 per minute, and appearances were somewhat alarming. The abdomen presented a curious appearance, as if the uterus were in two parts. On vaginal examination there was some, but not severe, hæmorrhage, and the presenting head, which was far up, could be felt.

From all the conditions, I suspected rupture of the uterus, and sent for Dr. Jackman, of Thurles, in consultation. On his arrival an hour later the weakness of the patient had become even more extreme, and, on vaginal examination, no presenting part could be felt, which suggested that the fœtus had by this time escaped from the uterus. Dr. Jackman confirmed the diagnosis, and we decided to deliver, if possible, as an abdominal operation was out of the question, owing to want of hospital facilities, and the extreme collapse present which rendered recovery from such a procedure, or even from an anæsthetic, most unlikely.

I reached the child's feet and brought them down, and delivery of the body and shoulders was accomplished without difficulty, but the head was quite immovable; with my fingers in the mouth I made strong traction, but to no purpose. We tried turning the head in different diameters of the pelvis with no result. I then passed my hand beside the head and found it was of very exceptional size and probably in a condition of hydrocephalus. In these circumstances craniotomy became necessary, which we did as soon as the instruments were prepared. When the perforator was inserted a large quantity of fluid came away mixed with some brain matter and the head collapsed and was delivered without further trouble.

I then proceeded to remove the placenta which had passed into the peritoneal cavity. I found it easily enough by following the umbilical cord, but when it was withdrawn it was followed through the uterine tear by a loop of small intestine, which came down into the vagina.

The tear was in the lower part of the uterus, and the edge of it could be felt with the finger. I next returned the intestine to the peritoneal cavity through the rent and packed as well as I could with iodoform gauze. By this time the patient was quite pulseless, and we had very little hope of her recovery.

Next morning she was much better with a pulse of 110. She complained of great tenderness, and vomited slightly. I changed the gauze packing which was blood-stained. The abdominal tenderness was followed by swelling and hiccough, and there was plainly a certain amount of peritonitis. The gauze was changed for four or five days and then dispensed with altogether. Vomiting was very troublesome for some days and caused great pain which was located in the womb. The latter organ could be felt in a hard mass in the right iliac region. After two days the bowels moved naturally. Diarrhœa set in and was present at intervals for two weeks. Soon a discharge of whitish, watery fluid began to appear from the vagina and continued for a week, the abdominal swelling and tenderness gradually disappearing at the same time. It was clear that the inflammatory fluid was being drained from the peritoneum through the rent in the uterus.

At the end of three weeks all signs of abdominal trouble had disappeared and the woman had recovered, but, unfortunately, she had been confined in a lunatic asylum some years ago and mental symptoms again began to appear, which have not as yet quite passed away.

I think this case is quite worth bringing to the notice of the profession as many of us in country districts would have little hope that such a one would recover under non-operative treatment.

OPERATING THEATRES.

ST. THOMAS'S HOSPITAL.

Having operated upon an inguinal hernia in a child and an adult, upon a femoral hernia and upon an umbilical hernia, Mr. Corner said that there were three important clinical considerations about each of these sets of hernia. Hernia is a very common condition, and in consequence it behoved all men to understand the "whys and wherefores" about them.

Why did we operate on these herniæ?

Operation is recommended or done on all herniæ, unless there is a contra-indication special to the patient. In other words, operation is the first line of treatment. Why? Chiefly for two sets of reasons: the disabilities of the patient and the qualities of the operation. Let us begin with the disabilities of the patient. Firstly, the condition is incurable without operation; apparent cure is known, and is dangerous because of the sense of security it gives. Secondly, a truss is an uncomfortable, distressing thing to wear, fraught with disadvantages to the rubbed and squeezed tissues, as well as to the patient. Moreover, it is a danger, being often worn *on* the hernia, especially omentum, instead of *under* the hernia, in this way being responsible for inflammation, adhesions, irreducible and graver accidents in the contents of the hernia. Thirdly, and a business consideration, no service, civil or military, will accept a person with a hernia. He is unsuited for any active life, civil or military, and is a "cracked pot." In fact, the disabilities of the hernia-person could be made into a long list of thirdlies and fourthlies, but as it might bring weary recollections of the Sabbath's sermons, it is well to be satisfied with indicating that the presence of a hernia is a great nuisance, a great disadvantage, and a possible source of danger. The nuisance, disadvantages and dangers are greater in femoral herniæ than in inguinal, and still greater in umbilical than in femoral, whilst internal herniæ which need not easily declare themselves, are even yet more dangerous than external herniæ which show their presence. Obturator and diaphragmatic herniæ may be classed with internal herniæ.

Mr. Corner then pointed out that special reference must be made to the herniæ of children, because in them operation was aided by the subsequent growth of the region, and it was possible to do more for children than for adults.

Then as to the qualities of the operation. These operations have changed much in the last ten years; they have risen from 342 (practically one a day) to about 700 (two a day). This shows the great appreciation of the benefits of the operation by the working classes. The duration of the convalescence is short—a fortnight in bed. The danger of the operation is practically nil. The pain of the operation is much less, owing to the absence of inflammation; than it was ten years ago. The possibilities of cure are nearly sure. According to hospital figures, a sure ground of dispute, recently recurrence took place in about 4 per cent., and ten years ago in about 3 per cent. These numbers appear too small, but they serve to indicate two main things; firstly, in spite of the improvement in *technique*, the percentage of recurrence of herniæ after radical cure has not fallen in the last ten years—it is the patient's misfortune or fault, not the surgeon's fault or failure; secondly, more or less fit people are seeking the benefits of operation for their herniæ.

For a third consideration are the essential points in an operation for the radical cure of a hernia. In order of importance they are: Firstly, the complete removal of the sac; secondly, healing by first intention (*i.e.*, of the deeper parts of the wound); thirdly, suture of the canal. This order of merit for consideration is designed for its application to inguinal, femoral, and obturator herniæ. But the suture of canal is of prime importance in the radical cure of umbilical and ventral herniæ. Hence the surgeon's work can be easily done well, and the result must be good if the patient supplies good tissues for the surgeon to work with. Simplicity of operation, so long as it is sufficient for success, is the best. Do not waste time in the exact suturing of inguinal canals.

The question of operation for all kinds of herniæ has now been considered briefly, and it is explained why operation is desirable in all cases, unless some condition of the patient indicates otherwise. Further, operation is more necessary for umbilical and ventral herniæ than for femoral herniæ. Operation is more needful for femoral than for inguinal herniæ. In the last is seen more the operation of expediency than the operation of necessity, which figures first in umbilical and femoral herniæ

CORRESPONDENCE.

FROM OUR SPECIAL CORRESPONDENTS ABROAD.

UNITED STATES OF AMERICA.

New York, Aug. 19th, 1914.

An Act to Control Opium Traffic in U.S.A. at Home and Abroad.

(Concluded from our last issue.)

Dr. Hamilton Wright has sketched the principles to be contained in such an Act, and has embodied them in his report to the Secretary of State on behalf of the American Delegates to the International Commission which sat a Shanghai in 1909.

(1) That such an Act should demand the registration of every person who imports, produces, manufactures, compounds, distributes, or otherwise handles habit-forming drugs in interstate or foreign commerce.

(2) That importers, wholesale compounding pharmacists, and wholesale dealers should pay a small per annum tax of $10, and that retail pharmacists and other retail dealers, including physicians who buy in interstate commerce and who carry large supplies of the drugs, should pay a tax of from $1 to $3 per annum; that everyone engaged in handling drugs should register and pay a tax.

(3) That, without attempting to derive a revenue beyond the amount necessary to administer the Act, all of the habit-forming drugs should have imposed upon them an internal revenue tax of, say, 1 cent per ounce, and that such tax should be paid by affixing to packages or other receptacles containing the drugs, an engraving stamp, to be affixed and cancelled according to law.

(4) That all compounds or preparations manufactured from the original tax-paid drugs should be marked or branded in such a manner as to show the payment of the tax on the original drug.

(5) That every person concerned in the importation, manufacture, re-manufacture, or compounding, selling, or dispensing of habit-forming drugs and their preparations. should keep such books, render such returns, and give such bonds as may be determined by the Commissioner of Internal Revenue, with the approval of the Secretary of the Treasury.

(6) That it should be unlawful for any person to sell, give away or otherwise dispose of in interstate commercery any of the habit-forming drugs, their salts, derivatives or preparations to any person other than a person who has registered and paid the special tax, public hospitals and scientific and public institutions excepted.

(7) That all of such drugs, their derivatives and preparations imported should pay an internal revenue tax equal to that imposed on the home-produced drugs.

(8) That on trial for violation of such an Act, illegal possession of such drugs should be deemed as sufficient evidence of such violation, unless the defendant shall explain the possession to the satisfaction of the jury.

(9) That all returns required by such an Act should be filed and recorded in the office of the Commissioner of Internal Revenue under such regulations as may be approved by the Secretary of the Treasury, and that these should be open to inspection and certified copies should be made to the proper officials of the State, territory or district under the jurisdiction of the United States who are charged with the enforcement of local laws regulating the precribing, dispensing, sale or use of such drugs.

(10) That heavy penalties, either by fine or imprisonment, or both, should be imposed on the violator of such an Act.

It is most important that traffic in opium should not be a source of revenue beyond the amount required to administer its control. It is the need of the revenue which demands so long a time as ten years for the cessation of traffic in China. This leads me to the international control of the traffic in narcotic drugs, and in a future article I shall consider the attitude of the American delegates towards the labours of the International Opium Commission and the results of its deliberations.

FROM OUR SPECIAL CORRESPONDENTS AT HOME.

SCOTLAND.

GLASGOW.

Unorganised Hospital Aid for Wounded.

The Scottish Branch of the British Red Cross Society have issued a statement deprecating the well-meant but unauthorised endeavours that are being made in some places to form local hospitals. This action on the part of voluntary aid detachments of the Society is calculated, they say, only to cause confusion and unnecessary trouble, without fulfilling any useful purpose. The control of the voluntary aid detachments passed, as soon as war was declared and the Territorial Force was mobilised, from the Red Cross Society to the military authorities. Ample provision for the care of the normal per centage of sick among those troops that are at present embodied and quartered in this country has already been made, and the only chance of large numbers of wounded being in any particular part of the country, unless transported there, is if there is actual fighting in that part of the country. The military and naval authorities are better able to judge than any private parties as to the places in which fighting is likely to occur. What is desirable is that people should be prepared to take up such enterprises if they become necessary in any locality in the future.

Military Hospitals.

The recently instituted military hospitals, such as that at Stobhill, Springburn, Glasgow, are not under the control of or supported by the Red Cross Society, but have been equipped and are supported by the Government, while their sole management and control lie with the military authorities. There is no Red Cross hospital in Scotland at the present moment, nor will there be until the necessity for it is indicated officially by the military authorities. It is more probable that Red Cross units or even an hospital may be asked for abroad, and a large amount of money will be wanted for these.

Dumbartonshire Doctors' Arrangements.

The Dumbartonshire Branch of the British Medical Association has held a meeting in Glasgow with the County Panel and Local Medical Committees. It was unanimously resolved to recommend to all medical practitioners in the county that, during the war, wherever it is required, medical attendance be given free of charge to the necessitous dependants of all men on active service at home and abroad; and, further, to suggest that the best way to carry this recommendation into effect will be by affording gratuitous attendance to such necessitous cases as are vouched for by the Soldiers' and Sailors' Families' Association or by its local committees throughout Dumbartonshire. A resolution intimating willingness to co-operate as far as possible with the official Relief Committees within the county was also passed unanimously. It was decided to assure those doctors in the county who have been or may yet be called up for service that the interests of their practices will be safeguarded during their absence.

National Health Insurance and the War.

The Scottish National Health Insurance Commissioners have intimated that no arrears need be paid up by Reservists or Territorials on service. Their wives need not pay arrears on their behalf. While the husbands are serving, their wives will be entitled to maternity benefit, even if they are in arrears, provided the usual 26 qualifying contributions have been paid. No matter how great the arrears are, the maternity benefit is payable. Societies will continue to deal with any claims for maternity benefit exactly as if the men had remained ordinary employed contributors.

LETTERS TO THE EDITOR.

[We do not hold ourselves responsible for the opinions expressed by our Correspondents.]

SIR VICTOR HORSLEY AND FORCIBLE FEEDING.

To the Editor of The Medical Press and Circular.

Sir,—As a small and obscure one I have always felt a vast admiration for those that seemed really strong and deservedly prominent in our profession. I have been always greatly drawn to the personality of Sir Victor Horsley. I saw him show his strength at about the opening of my career in his fight against the fanatical—or perhaps maniacal—opponents of physiological research; I saw him standing alone as a strong man confronting the great gathering of the profession at Queen's Hall at the opening of the Insurance Act campaign. He has always seemed to me scientific, logical, and strong, and yet we now see him taking up an attitude in the forcible feeding question that seems a negation of all these qualities. It seems to show that there exists a great deal of humanity in mankind, and that the strongest man has a weak spot on his sentimental side through which he may make himself appear absurd in the eyes of all those who have preserved their mental equilibrium in the controversy. Sir Victor Horsley's main arguments in his letter in your last issue seem to me merely fantastic quibbles. The Suffragettes demand the vote which Parliament refuses, and they in fact claim that the State has no right to punish them when they attempt by violence to coerce the legislature by crime and terror. They say, in fact, that being convicted and sent to prison, they ought to be released because they attempt suicide. It is the duty of the authorities to keep them in prison and prevent suicide, and when the attempt at suicide takes the form of a hunger strike they justly prevent it by forcible feeding. It is a grotesque quibble coming from an accomplished man of scientific intellect to suggest that a criminal Suffragette deserves treatment any different to what would be meted out to an armed burglar or other criminal of the kind. The burglar has as much right to help himself to other people's goods by force as the Suffragette has to coerce the State into compliance with demands which they refuse. Sickly sentimentalism is one of the many causes afflicting our country during long years which have contributed to putting our country and our Empire in the perilous position in which we now stand. The sickly sentimental treatment of the Suffragettes has brought upon us the scorn of the civilised world, and has helped at least in some degree to imbue the foreigner with the belief that the British race is no longer worthy to hold or fit to govern the vast domains across the seas over which the flag still continues to fly.

I am, Sir, yours truly,
An Obscure Practitioner.

FORCIBLE FEEDING.

To the Editor of The Medical Press and Circular.

Sir,—I fail altogether to follow Sir Victor Horsley's line of argument in the last issue of The Medical Press and Circular. Sir Victor says: "Forcible feeding is certainly not employed as Dr. Sers asserts it is, to keep militant hunger-striking Suffragists alive, because if it were, *then all such prisoners* (the italics are mine), including Mrs. Pankhurst, would be forcibly fed." The fact that some are forcibly fed and others are not in no wise controverts the truth of my statement, viz., that "they are fed to be kept alive," because in those cases where they are not forcibly fed, the Government in their weakness have yielded to the "attempt to commit suicide," hence the necessity of forcible feeding, as in the case of Mrs. Pankhurst, does not arise. On the other hand, in those cases where the Government have from reasons best known to themselves, acted with more resolution and determined to detain the prisoners alive in prison as long as possible, the necessity for forcible feeding does arise in order to prevent starvation. How, therefore, in the face of this can Sir Victor say I am "wrong in my statement"?

I entirely agree with the Home Secretary and Sir Victor Horsley that forcible feeding is a most objectionable practice, so is hanging or capital punishment of any kind; but until some better method is discovered as a deterrent to homicide we retain it, notwithstanding its repulsiveness and objectionable features. This applies also to forcible feeding, which we retain to prevent starvation, and I venture to state it surpasses the wit of man to deal with voluntary starvation by any other method, unless possibly under some hypnotic process or "suggestion." May I ask Sir Victor, as he lays so much emphasis on the objectionable phase of forcible feeding, why the militants so directly concerned do not obviate the necessity for it by eating their food after the manner of human beings generally, and doubtless forcible feeding is in some sense "punitive," because it detains the militants in prison longer than convenient, and ensures for the time being their inactivity for further crime; but none save the most prejudiced could conceive forcible feeding is resorted to in order to inflict pain. On the contrary, artificial feeding is incomparably less painful than hunger-striking, and I venture to state, as in the case of the present war, where a besieged city is threatened with starvation the overwhelming majority would accept forcible feeding as an alternative to starvation if need be, even to the end of their days.

With regard to the quibble as to whether forcible feeding is "medical treatment" or otherwise, this appears to me arbitrary, but speaking for myself I should say forcible feeding in the hands or under the supervision of a qualified medical man should certainly be regarded as medical treatment, in the same sense as artificial respiration in the case of a person all but dead from asphyxiation or through drowning would, if performed by or under the supervision of a medical man, be medical treatment.

There is one question somewhat vague to me and which might open too wide a field for discussion which Sir Victor asks in the last paragraphs of his letter which I think I had better avoid, as it appears to me irrelevant to my letter, and I have already encroached too much on your valuable space, so I would rather focus attention to my original and simple question—viz., "What do those who propose discarding forcible feeding offer as a substitute to prevent death from starvation?"

I am, Sir, your truly,
Clement H. Sers.

5, Chanctonbury Road, Hove,
August 27th, 1914.

REPORT OF SELECT COMMITTEE ON PATENT MEDICINES.

To the Editor of The Medical Press and Circular.

Sir,—For my present knowledge of the above-named report issued on Wednesday last, I am indebted to the excellent summary in the *Times* of the following day. It is evident that the Committee is unanimous. The necessary changes in the law which they suggest are to the last degree simple and practical. The members of the Committee either alone or in combination will be able to make plain to the Government the urgent need for legislation; and there need be no doubt that, unless in the meantime we fall under the heel of Germany, we shall before long see an end put to a villainous traffic left too long immune against the law. It is a good deal more than 30 years ago that I began to help in exposure of quackery. I always urged that the case for legislation was overwhelming and needed only exposure before some authoritative tribunal to compel the activity of Parliament. I advocated a Royal Commission; but I now see that the work was quite within the powers of a Select Committee. The present Committee has dealt with only one half of the question; another Committee on the same lines is capable of dealing as deadly a blow at quackery as represented by fraudulent unqualified practitioners and those of their assistants who, as frequently happens, have been struck off the *Register* for infamous conduct, and yet go on practising screened by a quack.

I am bound to say that in the long fight against quackery The Medical Press and Circular has always stood in the front, and in spite of the apathy and even occasionally the sneers of other medical papers has stuck to its guns in a righteous campaign.

The quality of the Select Committee leaves very little doubt that they are determined to see the matter through; but at the same time the profession through all its organised bodies ought to prepare to back them up in every possible manner. It was, I think, a great advantage that when I gave my evidence with regard to advertising, the Chairman of the Committee should have given place to the Hon. Harry Lawson, one of the proprietors of the *Daily Telegraph*. My evidence was printed, and I assume will be issued with the report. The long list of remedies the advertisement and sale of which the Committee advise should be prohibited will remove the last shred of excuse for newspaper proprietors; and it can hardly be doubted that those—there are, of course, a considerable number that are quite blameless—among the great papers that have up to now admitted objectionable advertisements will have to reconsider their position. It is the majority of the great papers that have done the harm, and have justified inferior journals in more disgraceful methods including the insertion of puffs—articles written and displayed in the style and place of editorial matter. I quoted to the Committee the statement made to me by the managing director of a country newspaper company on the subject. He said they were a purely trading company, and it was out of the question that they could refuse quack advertisements which appeared in the majority of leading London papers, including most of those that set themselves up as exposures of humbug and fraud.

I am, Sir, yours truly,
Henry Sewell.

The Old Rosery, Earlswood Common,
August 28th, 1914.

[We hope to refer in detail to this important Report at an early date.—Ed. M.P. and C.]

INFANT MORTALITY.

To the Editor of The Medical Press and Circular.

Sir,—I must protest, as a member of the Infant Consultations Society, against the Emergency Meeting Executive Committee's recommendation, No. 5, as stated in The Medical Press and Circular, August 19th, p. 203, "That stimulants are not only unnecessary, but are harmful to nursing and expectant mothers." I feel sure this cannot be the opinion of the impartial members of the Society, and that it is really an imprudent message to the profession at large.

I have found the greatest possible benefit, both to nursing and expectant mothers, from the judicious use of stimulants, and so thought the most practical teacher of midwifery of last century (Dr. Braxton Hicks).

Only a few weeks ago an anæmic, debilitated young nursing mother came to my clinic for advice, as her milk was drying up and the babe was always crying as if hungry. I recommended 12 ozs. of oatmeal stout a day, 6 ozs. with dinner, and 6 ozs. with supper. The effect was very gratifying; the child was more contented and the mother said her appetite has much improved and the constipation was also much better. Both mother and child are now quite robust. The pair would have had a bad time under the Executive Committee's care.

We all know the abuse of stimulants among the working-class mothers, but that is no reason, as impartial scientists, we should not speak the truth when we advise the public with authority. I deplore the difference of the opinion in the profession upon such an important point, but one cannot submerge their conscience when discussing the matter.

I am, Sir, yours truly,
Thomas Dutton, M.D.

London, August 24th, 1914.

[Our correspondent will note that the statement to which he takes exception occurs in a "Letter to the Editor," and does not constitute an expression of editorial opinion.—Ed. M.P. and C.]

REVIEWS OF BOOKS.

CLINICAL EXAMINATION OF THE BLOOD. (*a*)

We are told that this small book is written with the idea of furnishing a very elementary guide to the most important and essential methods of blood examination regarded from the standpoint of the chemist and of the pharmaceutist.

There are three chapters—one on the blood film, one on hæmoglobinometry and one on hæmocytometry. Two very useful plates from Pappenheim's atlas are included. Only the methods preferred by Pappenheim are described. In spite of the elementary scope of the book it contains some strong fare. Distinctions between cell types are drawn which are far beyond the realm of practical utility, and this appears to be admitted on page 36. On page 33 we are referred to the leucopenic type of leucocytosis and the aleukæmic form of leukæmia. We are at a loss to know whether this is the wise type of nonsense or the nonsensical type of wisdom.

As a sample of the author's style we may quote the last paragraph—"The key to an increased anæmic index in oligocythæmic oligochromæmia is the hyperchromatic malformed cell." True, but we fear that the chemist and the pharmaceutist will emulate the the late Dominie Sampson in ejaculating "Prodigious."

(*a*) "Clinical Examination of the Blood and its Technique." By Prof. A. Pappenheim, translated and adapted by R. Donaldson. Bristol: John Wright and Sons. 1914. Price 3s. 6d. net.

For our own part we are delighted to have this concise statement of Pappenheim's views moderately free from polemic and parenthesis.

We yield to no one in our admiration of the author's genius and energy, and when he goes forth to battle with Ehrlich or Türk he is magnificent, but writing an elementary text-book is evidently not his forte.

PROBLEMS OF SCHOOL HYGIENE. (a)

This Conference was held at Edinburgh in May, 1913. It was attended by some seventy delegates from all parts of Scotland. Various subjects were discussed, such as the Hygiene of the School, the Medical Treatment of School Children in Towns, and Physical Education. Attention was given to the treatment of scabies and verminous conditions, very commonly presented by children attending Scottish Board Schools. Here the Board and the Public Health Department must co-operate. There are, in our experience, very few children attending city board schools whose heads are free from pediculi. This is a matter calling for very stringent measures, much more so than, we fear, is the case at present. This report is very interesting reading, but conferences of this kind are only of practical value when the suggestions given are acted upon. There is evidently a great amount of really good pioneer work being done by School Medical Officers, but much of it is necessarily hampered by conditions over which thy cannot possibly have control.

SURGERY OF THE STOMACH. (b)

Good wine needs no bush, and this old axiom may be applied to Mr. Paterson's book on "The Surgery of the Stomach." That this work has been well appreciated by members of the medical profession is proved by the rapidity with which the first edition has been exhausted. The popularity of the volume may be explained by the fact that it contains a remarkably clear exposition of the present situation of treatment of diseases and affections of the stomach from the surgical standpoint. Further, the views of the author are in some respects original and not in agreement with the opinions of the majority of surgeons. Mr. Paterson's conclusion that in the event of true pyloric obstruction, the relief received from the operation of gastro-jejunostomy is owing to physiological changes and not solely to the formation of a direct passage from the stomach to the jejunum is dealt with at length, and his assertions to this effect are supported by examples and data drawn from his own experience. Undoubtedly the evidence he brings forward makes out a strong case for his contentions. To use a common English simile, "the proof of the pudding is in the eating," and the author shows that his views are at least worthy of careful consideration. In the present edition the photographs illustrating the operation of gastro-jejunostomy have been reproduced in pairs, and by using a stereoscope the minutiæ of the operation are rendered exceedingly distinct. Plates from radiographs prepared by Dr. A. C. Jordan directing attention to the value of the method of diagnosing lesions of the abdomen have been also inserted. The practical character of the book, coming as it does from the hands of a capable surgeon, is likely to commend this, the second edition, to a still larger audience.

LITERARY NOTES.

Professor Calot's monumental work entitled "Indispensable Orthopædics," with coloured plates and 1,252 illustrations in black and white, has just come to hand, and we need but announce its appearance now. Dr. Calot is considered to be the most eminent authority on orthopædics in France. His work has already appeared in five different languages, and the present English edition is translated from the sixth French edition. It is written for general practitioners, and impresses upon them the necessity of beginning to treat all orthopædic affections from the commencement. It is divided into four parts dealing with acquired orthopædic affections of a tuberculous origin, of a non-tuberculous origin, congenital orthopædic affections and an appendix. The splendid illustrations are quite a feature.

* * *

"Keep Breathing: How to Do It and Why." This short brochure, by Madam M. A. Carlisle Carr, "Professor of Breathing, Voice Production, and Singing in all its Branches," purports to be a textbook and guide to right breathing, singing, speech, and every purpose in life. The authoress states that the "key" to the initial method "came to her" in 1883. "I knew I had found the true way to restore my own voice . . . and as I grasped the system, a great desire to tell others about it came to me, for I realised it was in the nature of a discovery—a revelation." This method of arriving at fundamental truth appears simplicity itself, and really one begins to wonder, in view of this and other like "discoveries," whether the painful, laborious and expensive process by which a scientist is made is not indeed a work of supererogation! The booklet is arranged in the form of questions and answers, and the keynote to the so-called system propounded by the authoress is a knowledge of automatic deep breathing, which "consists in 'letting yourself breathe,' just as you 'let yourself live' as an infant."

* * *

Matthew's "Manual of Nursing Homes" is a concise guide to spas, health resorts and hydros of the British Isles, together with a list of nursing and mental homes. The object the author of this little book has in view is an endeavour to supply a handy reference manual for the use of medical practitioners and the general public. On the left-hand side of each page is a photographic reproduction of the health resorts, arranged in alphabetical order, followed by a description of the chief attributes of each; the right-hand page is devoted to notices of the various homes and institutions, the whole forming a concise and compendious list of the information which one desires to see at a glance.

The guide fails in complete utility owing to the omission of practically all the nursing homes in the central part of London, not one of the well-known ones being included, and a more important omission still is found in the almost universal absence of any indication as to fees in the case of private nursing homes, about which an intending patient usually desires exact information.

* * *

"'Auricular Flutter' is a pathological action of the auricles characterised by rhythmic co-ordinate contractions of their musculature at a rate that is greatly accelerated, usually between 250 and 300 per minute." The term "auricular flutter," as applied to the human auricles, was originally employed by Jolly and the author in 1911. The clinical disorder is identical with the flutter induced experimentally by MacWilliam, and the present work forms a compendium of everything worth knowing with regard to this condition of auricular acceleration. The physiological, pathological and clinical facts regarding this disorder, together with the features which distinguish it from other disturbances of the heart's action, are here clearly described by Dr. Ritchie and well illustrated by numerous electro-cardiograms and tracings.

We are glad to welcome the appearance of this book at the present time as an authoritative pronouncement on this very interesting and important type of clinical abnormality. To those engaged in the study of circulatory affections we can cordially recommend the work before us, as it embodies a carefully written statement of the extent of our present knowlege.

(a) "Problems of School Hygiene." Being a Report of the First Conference of Scottish School Medical Officers. Edited by W. L. Mackenzie, M.A., M.D., L.L.D., and L. D. Cruickshank, M.D., D.P.H. Edinburgh: W. Hodge and Co. 1914.

(b) "The Surgery of the Stomach: A Handbook of Diagnosis and Treatment." By Herbert J. Paterson, M.A., M.C., M.B.Cantab., F.R.C.S.Eng. New and revised edition with plates. London; James Nisbet and Co., Limited, 1914.

Medical News in Brief.

Criticism of a Bone-Setter.

An inquest was held at the Durham County Hospital last week upon a youth of seventeen who was injured on July 24th in a colliery. The father stated that his son told him that he was putting at a flat. An empty tub was to be taken to a heavy place on the face. In hand-putting this tub he slipped and fell on his knee, bruising it, and he was afterwards taken to a bone-setter.

The Coroner: Why on earth should the boy be taken to a bone-setter with a bruised knee when he was being medically attended?

Dr. Hare said that what the bone-setter had done was to give the boy an inflamed joint. The leg was made a hundred times worse.

The Coroner declared that the inquiry showed how very foolish it was for people to go from a skilled medical adviser to an ignorant, unskilled man, who might fancy that he would be able to do it, and probably would be able if there were a dislocation.

The bone-setter had inflicted pain upon the boy and rendered the work of the skilled surgeon more difficult.

A verdict of "Death from heart failure following the accident" was returned.

A Sanatorium for Hull.

It is announced that the Hull Corporation have decided to borrow £14,438 for the erection of a sanatorium and hospital at Cottingham.

The Incorporated Sanitary Association of Scotland.

The fortieth annual Congress of the Incorporated Sanitary Association of Scotland will be held at St. Andrews from September 2nd to 5th. In a circular it is stated that the Council of the Association, acting in concert with the Town Council of St. Andrews, have decided that it is right, and indeed patriotic, to proceed with the business of the Congress as usual, but all the social functions which were arranged in connection with it have been cancelled. Among the business arranged in connection with the Congress is a lecture on "Health and the State," by Dr. W. Leslie Mackenzie, medical member of the Local Government Board. Mr. Francis Braid, sanitary inspector, Kirkcaldy, in his presidential address, will deal with "The Housing Problem as it presents itself to-day." A discussion on "The need of a statutory definition and fixed standard for milk" will be introduced by Mr. W. W. Kelso, sanitary inspector, Paisley. Other subjects to be discussed are "The handling and distribution of milk at railway stations and in the streets," "Doubts about disinfection," and "The question of establishing a uniform system and standard of meat inspection."

MEDICAL WAR ITEMS.

The following resolution has been passed by the Chadwick Trustees:—"That in view of the immense importance of encouraging in every way the promotion of careful sanitary organisation in the naval and military services during the present campaign, the Chadwick Trustees have resolved, under the powers conferred upon them under the Scheme they administer, to announce their intention to award at the close of this year the Chadwick Gold Medal and £50 each to the naval and military Medical Officer respectively in the British service who shall have distinguished himself most in promoting the health of the men in the Navy and the Army. The nomination for such presentations to be, as provided by the terms of the Trust, by the Directors-General of the Naval and Military Medical Services respectively."

The Chadwick Trusteees are also making arrangements for providing, or assisting in the provision of, lectures and demonstrations on naval, military and hospital hygiene. Particulars of these lectures will shortly be announced.

It is good news to hear that "Salicine," which was referred to in the "Confidential Circular" addressed by H.M. Government to the medical profession as being in short supply in the salicylic group, is now guaranteed by the British manufacturers to be sufficient for at least two years' normal consumption.

Two hundred beds are at the disposal of the Admiralty in the Dreadnought Hospital at Greenwich for the reception of sick and injured who may arrive in the Thames at any moment from the Fleet. These beds are fully equipped and in close proximity to the operating theatres, etc.

The Cambridge Research Hospital, through the generosity of Mr. Otto Beit, has been offered to the War Office as a completely equipped hospital with full medical, surgical, and nursing staff for 20 wounded officers. The War Office have intimated that they will be glad to avail themselves of this offer should additional hospital accommodation for officers be needed.

The Queen Victoria Memorial Hospital at Nice, of which Sir George White, of Bristol, is the Chairman, has been placed at the disposal of the French Government for the reception of wounded.

Sir Thomas Shaughnessy, President of the Canadian Pacific Railway Company, has offered on behalf of his company, a ship to be equipped and opened as a hospital by the Women's Empire League.

The Council of the Royal Institute of Public Health has placed its laboratories at the disposal of manufacturers and others who wish to avail themselves of the Institute's bacteriologists and chemists.

The British Field Hospital for Belgium, which is recognised by the War Office and is officially under the Belgian Red Cross organisation, has an honorary staff of five doctors, a priest, and 20 fully-trained nurses. The equipment includes 40 beds for wounded, X-ray apparatus, motors, ambulance cart, and four horses, and every requisite for hospital and emergency work.

With the object of giving financial assistance to the British Red Cross Society, Red Cross stamps in six different designs have been prepared, and a first issue of half a million stamps has been placed at the disposal of the committee free of cost. The stamps will be sold at a halfpenny each or threepence per set of six different designs.

A hospital of 200 beds, known as the "Allied Forces Base Hospital," under the charge of Major Ernest Miles, F.R.C.S., Surgeon to the Cancer Hospital, has been fully equipped and is ready to start for any locality on the Continent which the military authorities may deem advisable.

The number of wounded British soldiers back from the front up to Tuesday morning last is stated as follows:—300 in the Royal Herbert Hospital at Woolwich, 316 in the London Hospital, 100 at Plymouth, and 140 at Bishops Stortford. Most of them are wounded in the legs and feet, and, with the exception of some at Woolwich, there are few serious cases.

NOTICES TO CORRESPONDENTS, &c.

☞ Correspondents requiring a reply in this column are particularly requested to make use of a *Distinctive Signature or Initial*, and to avoid the practice of signing themselves "Reader," "Subscriber," "Old Subscriber," etc. Much confusion will be spared by attention to this rule.

SUBSCRIPTIONS.

Subscriptions may commence at any date, but the two volumes each year begin on January 1st and July 1st respectively. Terms per annum, 21s; post free at home or abroad.

Foreign subscriptions must be paid in advance. For India, Messrs. Thacker, Spink and Co., of Calcutta, are our officially-appointed agents. Indian subscriptions are Rs. 15.12. Messrs. Dawson and Sons are our special agents for Canada. For South Africa, The Record Publishing Co., Cape Town. Messrs. Geo. Robertson and Co., of Sydney and Melbourne, are our special agents for Australia.

ADVERTISEMENTS.

For One Insertion:—Whole Page, £5; Half Page, £3 10s.; Quarter Page, £1 5s.; One-eighth, 12s. 6d.

The following reductions are made for a series:—Whole Page, 13 insertions at £3 10s.; 26 at £3 3s.; 52 insertions at £3, and pro rata for smaller spaces.

Small announcements of Practices, Assistancies, Vacancies, Books, etc.—Seven lines or under (70 words), 4s. 6d. per insertion: 6d. per line beyond.

Contributors are kindly requested to send their communications, if resident in England or the Colonies, to the Editor at the London office, 8, Henrietta Street, Strand; if resident in Ireland to the Dublin office, in order to save time in reforwarding from office to office. When sending subscriptions the same rule applies as to office; these should be addressed to the Publisher.

Original Articles or Letters intended for publication should be written on one side of the paper only and must be authenticated with the name and address of the writer, not necessarily for publication, but as evidence of identity.

Reprints.—Reprints of articles appearing in this Journal can be had at a reduced rate, providing authors give notice to the publisher or printer before the type has been distributed. This should be done when returning proofs.

Dr. T. A. (London, S.E.).—The formation of tophi takes place even in so-called irregular gout, and when once the process has started it appears to be gradually progressive. Much can be done, however, by suitable dietetic *régime* and the judicious use of drugs to retard this particular form of degeneration.

THE WAR AND THE OPENING OF THE MEDICAL SCHOOLS.

The Dean of the Medical School of St. Bartholomew's Hospital, Dr. T. W. Shore, wishes it to be known that the school will re-open as usual for the winter session on October 1st. All reports to the contrary are entirely erroneous. The fact that the staff of St. Bartholomew's forms the 1st London (City of London) Base Hospital will in no way curtail their duties at St. Bartholomew's, nor the educational work of the school, and the new medical session will be carried on as usual with a full complement of teachers. All students in the school who have already volunteered for service or military training will have their interests safeguarded.

F.R.C.S.Edin. (Hants).—The use of citronella rubbed into the skin at night time is said to prevent the bites of mosquitoes and to be more efficacious than the usual mosquito nets, especially on board ship.

M B. (Colchester).—The case appears to us to be one in which an addition of three years might be made to the premium.

Vacancies.

Hulme Dispensary, Dale Street, Stretford Road, Manchester. Wanted, a House Surgeon duly registered and fully qualified. Salary £180 per annum. Annual increase £10 to £200, with apartments, attendance, coal, and gas. Applications, with testimonials, at once to Honorary Medical Secretary. (See advt.)

Manchester Northern Hospital for Women and Children, Park Place, Cheetham Hill Road.—House Surgeon. Salary £120 per annum, with apartments and board. Applications to Mr. Hubert Teague, Secretary, 38, Barton-arcade, Manchester.

General Hospital, Nottingham.—Senior House Physician. Salary £120 per annum, with board, residence, and laundry in the Hospital. Applications to the Secretary.

Royal Albert Hospital, Devonport.—House Surgeon. Salary £150 per annum, with board and laundry. Applications to the Chairman of the Selection Committee.

Brighton Throat and Ear Hospital, Church Street, Queen's Road.—Non-Resident House Surgeon. Salary £150 per annum. Applications to the Secretary, Mr. E. W. Pilbeam.

Sherburn Hospital, near Durham.—Medical Officer. Salary £300 per annum, and house. Applications to Henry Jepson, Durham.

City Fever Hospital, Little Bromwich, Birmingham.—Assistant Medical Officer. Salary £200 per annum, with board, residence, and laundry. Applications to the Medical Superintendent.

Whitehaven and West Cumberland Infirmary.—Resident House Surgeon. Salary £120 a year, with board, washing, and attendance. Applications to the Secretary of the Infirmary, Howgill Street, Whitehaven.

Whitechapel Union.—Medical Officer (Second Assistant Resident) Salary £120 per annum, with rations, apartments and washing. Applications to F. J. Tootell, Clerk to the Guardians, Union Offices, 74, Vallance Road, E.

The University of Sheffield.—Department of Pathology.—Junior Demonstrator in Pathology. Salary £200 per annum. Applications to W. M. Gibbons, Registrar.

Nottingham City Asylum.—Junior Assistant Medical Officer. Salary £200 per annum, with board, apartments, and laundry. Applications to the Medical Superintendent.

Herefordshire General Hospital.—House Surgeon. Salary £150 per annum, with board, residence, and washing. Applications to W. A. W. Price, F.C.I.S., Secretary.

Appointments.

Fleming, G., M.B., C.M., M.R.C.P.E., Medical Superintendent to the Durham County Sanatorium.

Holland, Eardley, M.D.Lond., M.R.C.P., F.R.C.S.Eng., Assistant Obstetric Physician to King's College Hospital.

Salisbury, Walter, M.B., B.S.Lond., Assistant Resident Medical Officer at the Queen Charlotte's Lying-in Hospital, Marylebone Road, N.W.

Births.

Codd.—On August 25th, at Broome Place, Norfolk, the wife of Ivo Geikie Cobb, M.D., of 10 Seymour Street, Portman Square, of a daughter.

Beatty.—On August 27th, at Craigvar, Pitlochry, the wife of Samuel Beatty, M.D. and C.M.Edin., of a son.

Brownlow.—On August 27th, at 50 Abingdon Court, Kensington, W., the wife of Lieutenant M. D. Brownlow, R.N., of a son.

Crichton.—On August 25th, to Dr. and Mrs. Brian Crichton, 80 Park Lane, Croydon—a son.

Earle.—On August 26th, at 33 Clevedon Mansions, Highgate Road N.W., the wife of Dr. Gastineau Earle (Middlesex Hospital), of a son (John Esmond Gastineau).

Graham.—On August 27th, at 17 Upper Wimpole Street, W., the wife of Cecil Graham, F.R.C.S., of a daughter.

Lamballe.—On August 23rd, at 308 Linthorpe Road, Middlesbrough, the wife of Major F. W. Lamballe, R.A.M.C., of a son.

Methven.—On August 24th, at the Medical Officer's House, H.M. Borstal Institute, Rochester, the wife of J. C. W. Methven, M.R.C.S., L.R.C.P., of a daughter

Rainey.—On Saturday, August 29th, at Wakefield House, Crompton Street, Eastbourne, the wife of E. Holmes Rainey, F.R.C.S., of a daughter.

Waterfield.—On August 27th, at Staithe House, Beccles, to the wife of E. Noel Waterfield, F.R.C.S., Sudan Medical Service—a son.

Wilson.—On August 28th, at 66, Holland Park Avenue, W., the wife of J. Horna Wilson, M.D., of a son.

Marriages.

Harrison—Hulke.—On August 26th, at Harwich, very quietly owing to the war, Staff-Surgeon William Rhodes Harrison, Royal Navy, to Irene Medora, only daughter of Mr. and Mrs. Frederick B. Hulke, of Admiralty House, Deal.

Melladew—Bain.—On the 26th inst., at Christ Church, Mayfair, Henry Frederick Lawaetz Melladew, late Surgeon Lt.-Col., Royal Horse Guards, to Elizabeth Mackenzie Bain, Winnipeg, daughter of the late Revd. William Bain, D.D.

Seth-Smith Gilman.—On August 26th, at Beaulieu Abbey, New Forest, Douglas N. Seth-Smith, B.A., M.B.Cantab., M.R.C.S., L.R.C.P., only son of Newton Seth-Smith and the late Mrs. Seth-Smith, of Wintney Court, Winchfield, Hants, to Hetty Irene, second daughter of Henry Stother Gilman and Mrs. Gilman, of Hythe, Southampton (formerly of Sonapore, Assam, India).

Susmann—Brooks.—On August 27th, at St. Mary's Church, Twyford, Berks, Walter James Susmann, M.A., M.B., B.C. (Cantab.), M.R.C.S., L.R.C.P., of Erchfont, Henley-on-Thames, to Lena Mary, only daughter of the late Dr. Bransby and Mrs. Brooks, of Sonning-on-Thames.

Treston—Mackenzie.—On August 25th, at the United Free Church, Tain, Mr. Maurice C. Treston, of the Indian Medical Service, to Isabel Blanche, elder daughter of the Rev. D. F. Mackenzie, B.D., Tain.

Deaths.

Bain.—On August 24th, 1914, at Straythorpe, Harrogate, Leslie Curtis, younger son of Dr. and Mrs. Bain, aged 18 years.

Hamilton.—On August 28th, at his residence, Maghera Buoy, Portrush, Robert Hamilton, Esq., F.R.C.S., late of Liverpool, aged 87.

Henson.—On August 24th, at Impendhle, Natal, South Africa, Dorothy Wickham Featherstonhaugh, wife of Dr. William Warner Henson, and second daughter of the late C. M. Major, aged 54.

Hill.—On August 24th, at his residence, St. Domingo, Beach Road, Hoylake, Charles Alexander Hill, M.R.C.S., L.R.C.P., of 13, Rodney Street, Liverpool, aged 47.

Myles.—On August 25th at 83 Marina, St. Leonards-on-Sea, of pneumonia, Dorothy Hume, wife of Staff Surgeon T. W. Myles, F.R.C.S., R.N., and youngest daughter of Rev. C. J. H. Fletcher, of Oxford.

Wiglesworth.—On August 24th, at 13, Esplanade, Waterloo, Dr. Arthur Wiglesworth, late of Brougham Terrace, Liverpool, aged 80 years.

Wise.—On August 26th, at Hampstead, Andrew Wise, L.R.C.P. Ed., M.R.C.S.Eng., formerly of Plumstead, aged 75.

HULME DISPENSARY.

DALE STREET, STRETFORD ROAD, MANCHESTER.

WANTED a HOUSE SURGEON duly registered and fully qualified. Salary £180 per annum. Annual increase £10 to £200, with apartments, coal and gas. Applications, with testimonials, at once to Honorary Medical Secretary

THE MEDICAL PRESS AND CIRCULAR.

"SALUS POPULI SUPREMA LEX"

VOL. CXLIX. WEDNESDAY, SEPTEMBER 9, 1914. NO. 11.

NOTES AND COMMENTS.

A Year Ago. TWELVE months ago our special students' number was issued under the ordinary circumstances of peaceful national life. It dealt in sober vein with various outstanding facts of interest to the medical profession, such as the value of technical museums, the fortunes of the small hospitals, the tuberculosis medical officer, and so on and so forth. Now all that is changed. The United Kingdom is involved in a colossal war, the like of which has not yet been seen in the tangled history of mankind. In spite of every effort by Sir Edward Grey, the Foreign Secretary, backed by the Government, England was forced to declare war in the first days of August against Germany and Austria, in defence of her own honour and of the inviolability of the smaller nations of Europe. Since then events have followed with astonishing rapidity. Germany has hurled a vast army, or series of armies, against France, and for that purpose has violated the neutrality of Belgium, the inhabitants of which have offered a resistance no less unexpected than heroic. The allied armies of France and Belgium have been joined by an expeditionary army of British troops—and deadly battle has been already waged upon a scale unprecedented in the annals of history.

The Medical Profession and the War. THE first great battle has resulted in a casualty list of between 5,000 and 6,000 British troops. This loss occurred in the course of continuous fighting for four days or more, during which our force appears to have retreated gradually and in good order over a distance of thirty miles or upwards. Details of the conflict are necessarily meagre at this stage of the proceedings, but one need not turn to newspaper accounts to realise that an enormous stress must have been thrown upon the Army Medical Service in dealing with large numbers of wounded men amid the confusion of a retreating army in continuous action. It is gratifying to note that within a few days' time many slightly wounded men were landed safely in England. Accounts have come of others who travelled long railway journeys with little or no food, and found difficulty in securing sea transport on reaching the French sea-board. The matter was very properly brought forward in the House of Commons, and was answered by Mr. H. J. Tennant on behalf of the Government. He stated that elaborate arrangements had been made for the rapid transport of wounded soldiers, and suggested that any difficulties that may have arisen were due to the soldiers having gone to ports other than those officially prepared for them. At the same time his attitude was more or less resentful of criticism—an official position that calls for some little comment.

The Wiser Plan. IF any fault is attributable for the miscarriage of Governmental plans for the disposal of the wounded the responsibility must assuredly rest upon the Department concerned. It is all very well to lay down certain specified routes for railway transport in a room at the War Office, but it by no means follows that the wounded soldier will be able to abide by these directions, even if by any chance he hears anything about them. The more businesslike plan would surely have been to provide for all routes likely to be taken to the coast. An attempt to hush up facts in the House is reminiscent of the bad old traditions of the War Office. Then, again, what has Mr. Tennant to say of the allegation that in some instances there was no proper medical organisation awaiting the wounded on their disembarkation in England. Statements to that effect have been recorded by the correspondents of responsible English newspapers. Every allowance must, of course, be made for the enormous amount of work thrown upon the Government by a great war. At the same time one cannot lose sight of the fact that various societies—such as the Red Cross and the St. John's Ambulance Association—are available for special service of the kind in question and are qualified to perform their work efficiently as regards training, equipment and personnel.

The Duty of a Medical Journal. THE duty of a medical journal is clearly to point out any defects that are due to lack of foresight or to bad administration. To do otherwise would be to foster that fool's paradise in which the War Office of former days was wont to pass its days. As a matter of fact the present system shows an almost incredible advance in efficiency since the Boer War, in which we were engaged a few brief years ago. The Army Medical Service, in point of fact, has shared to the utmost the general advance towards scientific and businesslike efficiency that has transformed the military service of the United Kingdom. The conditions of warfare have undergone a great alteration. The size of the modern army has been multiplied five-fold to seven-fold, or even more—a fact that has a weighty medical significance. Long range weapons and high explosives—not to mention the advent of aerial warfare—have modified to a great extent the nature of the injuries sustained. Then again, so far as the medical service is concerned, the personal risk to stretcher-bearers, and to surgeons and nurses at or near the fighting lines, is probably far greater than that to which they were exposed under former conditions. At long range it is obviously difficult or impossible to avoid hospitals and other localities marked by the red cross, which is, or should be, inviolable from deliberate hostile attack.

First Army Medical Casualties.

The foregoing paragraph anticipating heavy losses was written on Wednesday, September 2nd. On the following day appeared a detailed official first list of casualties among British officers. The numbers given are 35 killed, 52 wounded, and 69 missing; and the list appears to be incomplete. It seems, further, not unlikely, considering the deadly nature of the conflict, that the "killed" will in the end be considerably augmented. Reports as to German barbarity in the field have been so continuous, so detailed, and given on such responsible authority that observers, however cautious, can hardly avoid the conclusion that the enemy kill—in other words, murder—many of the wounded. If that be so the probability of a large proportion of the "missing" being really dead is correspondingly increased. The fact has an important bearing upon the losses reported in the Royal Army Medical Corps and Army Medical Service Corps. Although there were none killed, one was wounded and thirteen missing. In other words, a fourth of the total came from the medical branch. To some extent this disproportionate loss may be accounted for by the fact that as our troops fell back R.A.M.C. officers were left behind in charge of wounded men under the protection of the Red Cross. This list, it must be remembered, refers simply to the first part of the great battle begun at Mons on August 23rd, and gives no indication of the more or less continuous fighting that has taken place in the stubborn falling back of the Allies upon Paris before the overwhelming forces of the German Army.

The Army Medical Casualties.

The names of army medical officers on the first official list are as follows:—Wounded: Capt. T. H. Gibbon, R.A.M.C. Missing: Lt. A. J. Brown, R.A.M.C.; Capt. R. J. Cahill, R.A.M.C.; Maj. P. H. Collingwood, R.A.M.C.; Capt. W. Egan, R.A.M.C.; Lt. S. M. Hattersley, R.A.M.C.; Lt. H. W. Hills, R.A.M.C.; Maj. F. S. Irvine, R.A.M.C.; Lt. G. L. Lawler, R.A.M.C.; Capt. J. P. Lynch, R.A.M.C.; Capt: H. E. Priestly, R.A.M.C.; Lt. L. M. Routh, R.A.M.C.; Capt. R. A. Sutcliff, R.A.M.C.; Col. H. N. Thompson, Army Medical Service. Our losses by the 5th were reported as 10,345—and at the time of going to press are over 15,000. Details of the full list are not available, but the former total contains no medical officers among the killed and wounded; but among the missing are Lt. T. B. Bell, R.A.M.C.; Maj. J. H. Brunskill, R.A.M.C.; Capt. G. H. J. Brown, R.A.M.C.; Lt. P. P. Butler, R.A.M.C.; Capt. U. Crymble, R.A.M.C.; Capt. P. 'Dwyer, R.A.M.C.; Capt. T. G. Edmunds, R.A.M.C.; Capt. H. B. Kelly, R.A.M.C.; Lt. M. K. Nelson, R.A.M.C. A later list gives Capt. M. Leckie, R.A.M.C., and Capt. H. M. Perry wounded; Capt. J. H. Graham, R.A.M.C.; Maj. H. W. Long, missing.

The Sack of Louvain.

The ruthless way in which the Germans are carrying on the war is testified to by many War Correspondents. In all wars a certain amount of barbarity must be expected, but in the present instance so many accounts have come from responsible quarters of the killing of the wounded, of the massacre of non-combatants, including women and children, of reckless firing, sack, pillage, and wanton cruelty that it is impossible to doubt its existence. Apart from the evidence of eye-witnesses there is the silent testimony of devastated villages and towns burnt and depopulated. The destruction of the university town of Louvain, the Oxford of Belgium, with the loss of its priceless treasures of art, its ancient records, its magnificent library, and its splendid buildings fastens for all time an indelible blot on the escutcheon of the Kaiser Wilhelm the Second. With regard to this deplorable event, the University of Ireland has adopted and placed on record the following resolution:—"The Senate of the National University of Ireland desires to offer to the Illustrious University of Louvain its deep sympathy on the calamity which has befallen it—a calamity without parallel in history since the destruction of the Library of Alexandria. If this example prevail in warfare, then we may expect to find the Records and Achievements of civilisation extinguished by Ignorance in arms. Therefore we appeal to the Universities of all Nations to unite in a protest against an act so disastrous to the progress of mankind." It is to be hoped that this spirited protest will secure world-wide support and approval.

The Medical Examination of Recruits.

Now that the "Call to Arms" is resounding through the length and breadth of the land, the question of the physical fitness of candidates for the ranks looms large among others of equal importance. It is astonishing how many persons who believe themselves to be sound in wind and limb present, after due medical examination, some physical defect which, if not serious enough actually to debar them from enlisting, may prove a material drawback in the testing time of real warfare. Hence the strictness with which the medical examiner performs his duties. It is a mistaken kindness and an unwise patriotism that would pass a man with bad dentition or whose hearing is defective, though the man-in-the-street, in his eagerness to come forward, may think otherwise. Several of the dental schools and dental departments of the medical schools, as well as private dentists, have agreed to render free conservative treatment to recruits whose poor dentition has been the cause of their rejection. If time permit of the carrying out of a course of dental treatmen all well and good, but under the pressure of existing circumstances it may be allowable to relax the usual strictness regarding this part of the examination, greater attention being paid, meanwhile, to the candidate's sense of sight and hearing. A sound heart and a keen eye *plus* good digestion and fair muscular development will *cæteris paribus* more than atone for a slight dental shortcoming.

Delay in Examination of Recruits.

The marvellous response of the nation to Lord Kitchener's appeal for soldiers has thrown a fine light on our sturdy national character. Recruits have flocked literally in tens of thousands to the various stations. In London complaints have been made of the delay in medical examination, due to the paucity of medical men appointed to that special duty. With every appreciation of the sudden stress thrown upon the Army Medical Department and the marvellous competence they have shown in their organisation on a war footing it may nevertheless be permitted to make a few comments upon this quite understandable and minor defect. The cause of the trouble being a lack of medical officers, why should not a sufficient number of civilian practitioners be appointed without a moment's delay? There are in London and in all the big cities plenty of men who are competent both by standing and by experience to discharge the responsible duty of the medical examination of recruits. As a matter of fact the War Office could get a hundred medical men offhand in London alone, many of them qualified by hospital and military experience for the work, and capable of the precise application of any standard fixed by the War Office. If this simple step were taken recruits would be spared the many hours and even days of weary waiting and consequent discouragement to which they are at present subjected. It is clear that all avoidable obstacles should be as far as possible removed from the pathway of the men who are so nobly responding to the call of their country, and it is with this point in view that these remarks are offered for Lord Kitchener's consideration. As a matter of fact a fee of half-a-crown is payable for each examination, but it is of course impossible to think that there is any objection on the part of the War Office to pay civilians.

Brighter Financial Prospects.

The full results of the war upon the profession will not be fully realised for some time to come. For years past it has been customary to bewail the redundancy of medical men—and without doubt there was a good deal of truth in the general belief. Now there is likely to be a shortage for several years to come, and this will probably lead to an increase in the number of students. There seems to be a tendency to better remuneration of medical services in more than one direction. The National Insurance Act has effected an enormous improvement in the income to be derived from practice amongst the poorer classes. Not only is the panel doctor able to command, sooner or later, a fair and sometimes a large income from insurance practice, but payment is moreover guaranteed by the State. Then again, thanks to the efforts of the medical profession, the remuneration of many public appointments has been maintained at a fair standard. It is not unlikely that the rates of pay in the Government services may be raised before long and that after the present war there will be a permanent increase in the staffs of the army and navy medical service.

The Shortage of Medical Men.

The war has already absorbed a large proportion of what may be termed the floating section of the medical profession—that is to say, those of its members who are not engaged in private medical practice or in one of the public services. Many newly qualified men are residents in hospitals, where they gain a valuable insight into professional work. Others of various ages act as assistants or do *locum tenens* work. Naturally many of this class have joined the army as surgeons on the comparatively liberal terms offered for service during the war—namely, twenty-four shillings a day, with allowances, and £60 grant at the end of the term of service. In addition not a few practitioners have thrown up their work and gone to the front. A large number of hospital surgeons have followed their example, with the result of a serious dislocation of medical practice throughout the Kingdom. Before the war there was a shortage of medical men, a deficiency that has now been seriously aggravated. Many asylums, poor law infirmaries and voluntary institutions are at their wits' end to find resident medical officers to carry out their routine work.

German Drugs.

It is evident that a good deal of inconvenience may be caused by the stoppage of supply of various synthetic and other drugs derived from German sources. In some instances the drugs are manufactured entirely in England, and if their use be discontinued by medical men their action will tend to throw a number of their own countrymen out of employment. In other cases, the nature of a trading name of Teutonic aspect is apt to give rise to an entirely mistaken conclusion. As an example may be taken the Hoffmann-La Roche Company who have written us to say that although they have works in Baden yet their head office and laboratory are in Basle, Switzerland. This firm announces that it has large stock in England, and will have no difficulty in fulfilling orders now or at any future period. This point suggests another fact that medical men in the United Kingdom will do well to consider before finally deciding to delete drugs of near or remote German origin. The point is that many English firms hold large quantities of such remedies and it is again our countrymen who will suffer if they are left unsold. The best plan will probably be for our medical men to go on prescribing whatever drugs may be in their judgment most suitable for their patients, regardless of the country from which they have come. It would be little more logical to put a ban upon German music, or to resolve in future to disregard all scientific research work: "Made in Germany."

PERSONAL.

The King and Queen went to King Edward VII.'s Hospital for Officers in Grosvenor Gardens to visit wounded officers who have arrived from the front.

Dr. Frances Ivens will deliver the Inaugural Address at the London School of Medicine for Women in October next.

Sir Victor Horsley, F.R.S., will deliver the William Mitchell Banks Lecture in the University of Liverpool on October 9th.

Professor Arthur Keith, M.D., F.R.S., will deliver an address at the opening of the winter session of the Medical School of the University of Leeds.

Dr. C. Hubert Bond, Emeritus Lecturer in Psychiatry, will deliver an address upon the occasion of the opening of the winter session at the Middlesex Hospital.

Surgeon-General Sir Anthony Dickson Home, V.C., K.C.B., M.D., aged 87, of 7 Palace Gardens Terrace, W., a Crimean and Indian Mutiny veteran, successively Principal Medical Officer in Ashanti, in Cyprus, and in India, left estate of the gross value of £24,607.

Major F. S. Irvine, R.A.M.C., whose name appears among the "Missing" in the recent battle at Mons, took part in the famous siege of Ladysmith, and was also in the actions of Spion Kop, Vaal Krunz, Tugela Heights, as well as in subsequent actions in the Orange River Colony.

Note.—*A Clinical Lecture by a well-known teacher appears in each number of this Journal. The lecture for next week will be by E. Arthur Dorrell, F.R.C.S. Eng., Assistant Surgeon Royal Eye Hospital, Assistant Ophthalmic Surgeon, Prince of Wales's Hospital, etc., etc. Subject: "Lachrymal Obstruction."*

EDUCATIONAL SUMMARY FOR 1914-15.

INTRODUCTORY REMARKS.

With the advent of each October and the opening of the winter session of the medical schools, it is the custom of the leading medical journals to issue a special students' number dealing with matters of current and potential interest to those about to join the ranks of our great and learned profession. The following remarks have been drawn up with that end in view, and are offered in a spirit of full sympathy with the aspirations that should inspire the will and determination of all students who have chosen a career in medicine.

The necessity of a wide culture is registered in the scope of the preliminary examination. For those who aspire to its highest honours it is necessary to possess a knowledge of many things outside medicine, and above all to acquire an intimate acquaintance with men and manners. Happily, this does not mean that the aspirant must needs have a University training, for some of the men whose names are household words in the profession have not enjoyed that advantage, while others have started from the lower steps of the social ladder. The prizes of the profession, in fact, are open to all, assuming, of course, that they are able to obtain an adequate preliminary education and the funds necessary to meet the expenses of qualification. Of late years the tendency has been to include in the preliminary examination subjects that would be of direct use to the student in his later career in the schools. It would be difficult to imagine a better training for a young man than that required in mastering the elements, say, of botany, zoology, and chemistry. At the outset of our remarks it has seemed natural to dwell upon the intellectual side of the career of medicine, for in that will be found a solace for the trials and difficulties that must be faced in that as in all other walks of life. From the monetary point of view it is open to any man of ordinary gifts and application to secure a competency, although he may have at first to go through a more or less extended period of years spent in the weary task of waiting for practice.

It has been our duty year after year to warn those entering or about to enter the medical profession that they must not, as a rule, expect to make a fortune. There are prizes not only for consultants and specialists, but also for general practitioners, but moderate success and competency must be the lot of the majority in all branches of practice. During the past twelve months, however, as pointed out in our opening columns, the financial conditions of practice have considerably improved. A vast amount of work amongst the poorer classes that prior to the National Insurance Act was performed either gratuitously or at contemptibly low rates, is now paid for handsomely by the State. At the same time the general rate of friendly society and Poor Law appointments has been generally advanced, thanks to the self-protective efforts of the profession itself. National insurance has had an effect upon the hospitals, the full extent of which it is not yet possible to estimate. The total number of patients in voluntary hospitals has diminished, and their income has in not a few instances also decreased. The working of the Act has placed the members of the honorary hospital staffs in an anomalous position. By attending to insurance patients without fee they are doing service for which the State has contracted to pay. There can be little doubt that sooner or later this unsatisfactory state of affairs must be readjusted. The Chancellor of the Exchequer cannot, and it may be readily believed, does not wish to throw any part of the responsibility of insurance medical work upon voluntary charity. Hospital surgeons, physicians and specialists, again, have undertaken to give their services to poor persons subject to certain charitable regulations, but their agreement certainly does not cover attendance upon insurance patients. In the case of the small hospitals, the hardship inflicted under the Act is great, inasmuch as they find themselves depleted in patients and in funds, with no compensatory prospects at the hands of the State that has dealt them so staggering a blow. Treating the situation more generally, it seems fairly evident that national insurance constitutes a considerable advance towards the institution of a system of a State medical service. Another step in a similar direction will be the enrolling of the voluntary hospitals in the national insurance organisation. This consummation, however, is not likely to be attained in any near future. The student who intends to devote himself to those higher branches of medical practice in which a hospital becomes a necessity would be well advised to keep a careful eye on the conditions of such posts, whether in general or in special hospitals.

There are other fields of civilian practice open to the qualified practitioner.

Such, for instance, is the school medical service and the greatly increased and partly specialised Poor-law medical service. In any case, a State appointment of the kind, however irksome and laborious, must rank immeasurably higher than the open dispensary practice with its degrading circumstances. It is indeed deplorable to find a member of a learned and honourable profession offering physic and advice for sixpence, or even threepence a consultation. In the course of time, however, we may hope that the conditions of which this kind of undesirable medical practice is the outcome may be removed, and that there will be no need for any qualified man to adopt such discreditable methods.

From the first day that he commences his medical studies the student will do well to keep steadily in view the necessity for keeping abreast of new ideas. The present age is one of thinkers, and it is filled with fresh ideas in all branches of intellectual activity with an exuberance that has never been equalled at any previous period of human history. Above all is this true in medicine. The student of a generation ago finds himself surrounded with a host of new methods, remedies and appliances, the very jargon of which demands for its interpretation the brains of a general specialist. To-day the private practitioner must have a knowledge of vaccines, of many laboratory methods of diagnosis, and of a long list of technical processes, or, at any rate, of their principles and their practical application, as, for instance, in the case of the Wassermann test for syphilis and the treatment of that malady by Ehrlich's famous "606."

In all classes of practice the need of the pathologist is everywhere more apparent. So great, indeed, has become the necessity that we were lately informed on good authority that a famous German physician had a full clinical examination made of each patient before the latter entered his consulting room. The student, bearing this in mind, will do well to pay careful attention to the acquirement of a working knowledge of the main methods of the clinical and pathological laboratory. At the same time it can hardly be too strongly impressed upon him that it is necessary to cultivate the habit of close bedside observation of his patient. It is impossible to replace by the test tube and the microscope that carefully trained faculty which has been aptly described as the "clinical sense," the presence or absence of which not infrequently determines the success or failure of the medical man in his professional career. It should be remembered that the conditions of actual practice differ widely from those met with by the student in a well-appointed hospital. In dealing with private patients the practitioner is thrown upon his own resources, and may have to meet serious casualties and emergencies with the slenderest of surgical and medical resources. An extreme instance of the kind is when a medical man is called upon to treat a foreigner *in extremis* unprovided with a stethoscope or other ordinary professional appliances, and unable to communicate directly or indirectly by word of mouth with the patient or his friends. Under such circumstances the diagnostic faculties of the medical observer are put to a crucial test. An instance that sometimes happens in private practice at home is when a medical man is called by the police to an unconscious patient. An error in the diagnosis of alcoholism or other narcotic poisoning, fractured base of skull, concussion, diabetic coma, apoplexy, and so on, may destroy the patient's chance of recovery and have a disastrous effect upon the reputation of the medical attendant. Any man who has carefully trained his clinical senses will lessen proportionately the chances of error in this admittedly difficult branch of diagnosis.

From an early period of his studies, the student will do well to devote some attention to the wider aspects of professional work, for the real business of his life begins after the days of his probation. There are many ways in which the position of the medical practitioner might be greatly improved. Nor is it going too far to say that most of them would be attainable were a proper representative body created to protect the interests of the profession. One of the early questions that the student would do well to bear in mind is the relation the General Medical Council and the Medical Corporation he has joined will have towards his future career. Will they leave him in absolute neglect from the day of his final qualification, or will they do anything to help him on in the professional struggle? For some reason or other the profession is in the unstable position allotted in sacred writ to the house divided against itself. Instead of a single-portal entrance to the profession, as in law, we have a score or more of conflicting corporations. Indeed, the spirit of rivalry, and of individual as apart from collective action, seems to be so deeply rooted as to render the outlook for future consolidation somewhat discouraging. Yet the signs of the times do not point all in one direction. The British Medical Association, in spite of various defects and errors, has shown that great things are possible to a great profession with a common object in view. The success of many other purely professional organisations, moreover, points the moral of the tale sufficiently well to show that the road to professional paradise lies through the gate of co-operative union. Lastly, there is the recent opposition to the National Insurance Bill.

Choice of a School.

Many things are concerned in the choice of a school. Tradition, family influence, proximity, means, and acquaintance with other students or members of the staff all come into play, and there are few who are not affected by them. The would-be student, however, who has the whole collegiate domain open to him and his selection unhampered by other consideration than that of merit, has the choice of nearly twenty centres in which to follow his bent. There is a natural tendency for a man to look to his immediate vicinity for the maturing of his genius, and in these days, when Universities are cropping up with bewildering frequency, most students will probably find one within fifty or sixty miles of their homes. As the medical curriculum is laid down carefully by the General Medical Council, there is not much variation in that of the individual schools, and a good all-round education can be relied on in practically every one. On the one hand, some have teachers of established ability and reputation, whilst others are seeking to obtain that enviable notoriety, and while some men may be attracted by the spirit of adventure to cast in their lot with the new and struggling, others will prefer the security of well-trodden paths. The object of this number of The Medical Press and Circular is to present impartially the claims and attractions of all schools, and if parents and their wards study its pages carefully they will, we feel sure, be convinced that there are none that have not their own special charms. The outlay on actual necessary educational expenses does not differ materially in different places, the higher cost of certain centres being chiefly due to the greater cost of living. It is obvious that in London, for instance, where rents are high, the cost of lodgings must be considerably more than in many smaller and less favourite towns, while, on the contrary, a student living in his parents' home in London will not be so much expense to them if he goes to a London Hospital as if he takes up his abode at a northern University. But, other things being equal, it is important for the average student to choose that school at which he is most likely in after years to obtain a resident post.

Choice of a Qualification.

One day, in the not very distant future, we hope, the choice of what qualification to study for will not present so great a difficulty as it does to-day. Owing to the haphazard way in which British institutions and customs grow up, there have come into being a number of rival interests, both pecuniary and scholastic, which it is difficult to break down, with the result that students are offered all sorts of qualifying diplomas, conferring on them the right to append almost every conceivable alphabetical combination to their names. It may be laid down in general terms that the shortest and least picturesque of these designations will generally be found the most serviceable, both from the expenditure of time that it will save in signing certificates, and in the greatest ease by which it will be understanded of the people. Happily, or unhappily, a qualification even of the highest order has, as a rule, but small relation to success in practice, and many practitioners of light and leading will be found to have laid the foundations of their success on a more solid basis than that of academical triumph.

Course of Study.

Although there are certain individual variations, the course of study pursued at all the medical schools is pretty much the same. One or two of the Universities are a little exacting in the number of special subjects they pile on to the crouching backs of their alumni, but in course of time it is generally found that the other centres of instruction follow their lead. Still, it is well to remember that from the moment the student pays his fee to the dean, the disposition of each moment of his time for the next five years is laid down with procrustean exactness, and that any diversion in the shape of amusement, illness, or failure in examination connotes a corresponding addition to the length of his pupilage.

Medicine, then, it should never be forgotten, is the means to an end, and that end is the amelioration of man's lot on earth, and not the aggregation of wealth. As the first it is a brilliant success; as the latter it is a sorry business. It is a career which should be chosen only after due deliberation, and by those alone who are prepared to accept whatever fate may betide them with cheerfulness and courage, secure in the faith that is begotten of high ideals and of a sense of duty manfully discharged.

THE ENGLISH UNIVERSITIES.

THE English Universities, including Wales, are eleven in number—viz., Oxford, Cambridge, London, Manchester, Durham, Liverpool, Leeds, Sheffield, Birmingham, Bristol, and the University of Wales. The choice of a University is usually determined by social, geographical, and financial considerations. Students whose parents are able and willing to incur the necessary expense will do well to select one of the ancient Universities, since their degrees confer upon their holders a status not accorded by the public to the degrees of more modern institutions. To those less favoured by fortune, but blessed with energy and a fair share of intelligence, the London University offers ample scope, and its degrees are recognised as the outward and visible sign of high professional attainments. A capable and industrious student, however, may equally well lay the foundations of success in one of the newer provincial Universities.

UNIVERSITY OF OXFORD.

There are two degrees in Medicine, B.M. and D.M., two in Surgery, B.Ch. and M.Ch., and two diplomas, Public Health and Ophthalmology.

Graduates in Arts (B.A. or M.A.) are alone eligible, except for the Diploma Examinations. To obtain the B.M. and B.Ch. the following examinations must be passed:—1. Preliminary Mechanics and Physics, Chemistry, Animal Morphology, and Botany. 2. Professional. *(a)* First Examination: (1) Organic Chemistry, (2) Human Anatomy. *(b)* Second Examination: Subjects—(1) Medicine, Surgery, Midwifery, (2) Pathology, (3) Forensic Medicine with Hygiene and (4) Materia Medica with Pharmacy.

The First Examination for B.M. and B.Ch. may be passed as soon as the Preliminary Scientific Examinations have been completed. The subjects may be presented separately or in any combination or in any order, provided Anatomy and Physiology be passed together.

The Second Examination may be passed after the completion of the first, but Pathology and Hygiene may be taken before or with the remaining subjects. Before admission candidates must present certificates of attendance on a laboratory course in Practical Pathology and Bacteriology and of having acted postmortem clerk for three months, surgical dresser for six months, and clinical clerk for six months. Also they must produce certificates of instruction in Infectious and Mental Diseases, and of attendance on Labours, and of proficiency in the practice of Vaccination and the administration of Anæsthetics. Also in respect of the First Examination candidates must present certificates showing that they have dissected the whole body once and have attended courses of laboratory instruction in Practical Histology and Practical Physiology.

The degree of D.M. is granted to Bachelors of Medicine of the University provided they have entered their thirty-ninth term and have composed on some medical subject a dissertation which is approved by the professors in the Faculty of Medicine and examiners whose subject is dealt with. A book published within two years of the candidate's application for the degree may be substituted for a dissertation. The degree of M.Ch. is granted to Bachelors of Surgery of the University who have entered their twenty-seventh term.

Diploma in Ophthalmology.—There is an examination once in each year in the Theory and Practice of Ophthalmology for the purpose of granting certificates of proficiency therein, styled Diplomas in Ophthalmology. The examination is under the supervision of the Board of the Faculty of Medicine, which has power to make regulations as to the subjects of the examination, the time at which the examination is held, and the conditions of admission. No candidate is admitted to the examination for the diploma who has not pursued at Oxford a course of study in Ophthalmology approved by the Board of the Faculty of Medicine, and extended over a period of at least two months.

Travelling Fellowship, Scholarships, and Prizes.—A Radcliffe Travelling Fellowship is awarded annually after an examination held in February. It is tenable for three years and is of the annual value of £200. Application should be made to the Radcliffe Examiners, Radcliffe Library, University Museum. A Rolleston Memorial Prize is awarded once in two years to members of the Universities of Oxford and Cambridge of not more than ten years' standing and who have passed all the Exams. for the degree of B.M. or B.A. for an original research in some Biological subject, including Physiology or Pathology. The Radcliffe Prize, founded by University College (1907), is of the value of £50 and is awarded biennially for research in some branch of medical science. The Theodore Williams Scholarships of the value of £50 each are awarded annually in the subjects of Anatomy, Physiology and Pathology.

Detailed information may be obtained from the University Calendar.

UNIVERSITY OF CAMBRIDGE.

AT the University of Cambridge five years of medical study are required for the M.B. and B.C. degrees. The candidate must have resided nine terms (three years) in the University, and have passed the "previous" examination in classics and mathematics. There are three examinations: The first in (1) chemistry, (2) physics, and (3) biology; the second in (1) human anatomy and physiology, and (2) elementary pharmacology including pharmaceutical chemistry and the elements of general pathology; and the third in (1) surgery and midwifery, and (2) principles and practice of physics, pathology and pharmacology. The first examination is divided into three parts, and the second and third examinations each into two parts, which can be taken separately. Subsequently to the third examination an Act has to be kept which consists in reading an original thesis, followed by an oral examination on the subject of the thesis. As the subjects for the examination for the degree in surgery are included in the third examination for the M.B. degree, candidates are admitted to the degree of Bachelor of Surgery on passing the third examination for Bachelor of Medicine.

The M.D. degree may be taken three years after the M.B. An Act must be kept, including the presentation of an original thesis, with oral examinations and an essay to be written extempore. There is also the degree of Master of Surgery, for which the candidate, having already passed for B.C., or being M.A, has otherwise qualified in surgery, has to pursue extra study in surgery, and has a special examination or submits original contributions of merit to the science or art of surgery. The yearly expenditure of a student who keeps his terms by a residence in a college is from £150 to £200 a year. This, however, may include all payments to the University and the College—all fees as well as clothes, pocket money, travelling expenses, &c. Non-collegiate students have to pay the University fees only, which are not large. They lodge and board in the town; their expenses, therefore, are largely in their own hands. Various studentships, scholarships and prizes are open to medical students.

The University grants a diploma in public health without the necessity of residence, the examination being in so much of State Medicine as is comprised in the functions of officers of health, and subject to the latest requirements of the General Medical Council. These examinations are held in Cambridge the first week in April and October. Candidates, whose names must be on the "Medical Register" of the United Kingdom, and need not be members of the University, should send in their applications to the Secretary of the State Medicine Syndicate a fortnight in advance. Every candidate who has passed both parts of the examination to the satisfaction of the examiners will receive a University Diploma testifying to his competent knowledge of the subjects comprised in the duties of a medical officer of health.

There are also special examination in (*a*) Tropical Medicine and Hygiene; (*b*) Psychological Medicine These examinations are open to qualified practitioners under certain conditions as to previous study and xperience. Successful candidates receive a University Diploma.

An abstract of all Regulations may be obtained upon sending a stamped directed envelope to the Assistant Registrary, Cambridge. Full information is contained in the *University Calendar*. The *Students' Handbook to Cambridge* may also be consulted.

UNIVERSITY OF LONDON.

The University of London became in 1900 a teaching as well as an examining body. The medical degrees awarded are those of M.D., M.S., and M.B., B.S., the two latter being now given together as a graduating degree. The medical degrees are granted to both internal and external students, the former being students of the constituent schools and colleges of the University.

The Matriculation Examination.—Students, before being admitted to the University, must either (1) have passed the Matriculation or the School Examination, or (2) have been exempted therefrom under Statute 116 of the University which recognises certain other examinations in its lieu. The examinations for matriculation take place three times in each year—in September, in January, and in June. Fee £2. If he withdraws before the last day of entry it will be returned to him. If he fails to present himself he will be allowed to enter for a subsequent Matriculation, within eight months, on payment of £1. If he retires after the commencement of the examination, or fails to pass it, the full fee of £2 is payable on every re-entry.

Provincial Examinations for Matriculation.—These are appointed by the Senate upon the application of any city, institution, or college desiring to be named as a local centre, and are carried on simultaneously with the examinations in London. Candidates must give notice upon their forms of entry to the Principal of the University, who will then make all necessary arrangements. Besides the University fee, a fee, usually varying from £1 to £3, is charged by the local authorities, and must be paid at the local centre immediately before the several examinations.

Faculty of Medicine.—The Faculty of Medicine grants the joint degrees of M.B., B.S. (Bachelor of Medicine and Surgery), and the higher separate degrees of M.D. (Doctor of Medicine) and M.S. (Master of Surgery). The curriculum for the medical degrees covers five and a half years, except in the case of students who have passed the Preliminary Scientific Examination or the First Examination for Medical Degrees, before July, 1910, and the examinations formerly known as the Preliminary Scientific, the Intermediate, and the Final Examination in Medicine are now respectively entitled the First, Second, and Third Examinations for Medical Degrees.

The First Examination for Medical Degrees (*Inorganic Chemistry, Physics, and General Biology*) takes place twice in each year, commencing on the Monday following December 10th, and on the second Monday in July. The fee is £5 for each entry to the whole examination, provided that all the subjects are taken at one time. When less than the whole examination is taken at one time, it is £2 for each subject.

The Second Examination for Medical Degrees (*Part I.*): *Organic Chemistry.*—This examination takes place twice in each year. No candidate will be admitted to this examination within six months of having passed the First Examination. The fee is £2 for the first and every subsequent entry. The examination will consist of a paper and practical work, and may include oral questions in Organic Chemistry, which is "to be treated in an elementary manner, and with special regard to its applications in physiology, pharmacology, and pathology."

The Second Examination for Medical Degrees (*Part II.*) takes place twice in every year, commencing in 1914 on the second Monday in March, and on the first Monday in July. The subjects of the examination are Human Anatomy and Embryology, Physiology, and Pharmacology, including Pharmacy and Materia Medica. No candidate shall be admitted to the examination unless he has passed the First Examination for Medical Degrees at least 18 months previously, and has passed Part I. of the Second Examination for Medical Degrees. The fee for each entry to the whole examination is £8. For re-examination in one subject it is £4.

M.B., B.S. Examination.—The M.B., B.S. examination takes place twice in each year, commencing on the fourth Monday in October and on the first Monday in May. Candidates will be examined in Medicine (including Therapeutics and Mental Diseases), Pathology, Forensic Medicine and Hygiene, Surgery, Midwifery, and Diseases of Women. The subjects may be divided into two groups, namely: (1) Medicine, Pathology, Forensic Medicine, and Hygiene; and (2) Surgery, Midwifery, and Diseases of Women. These groups may be taken either separately or together. The fee is £10 for each entry to the whole examination, and £5 for examination or re-examination in either group. There will be no separate examination held for Honours, but the list of candidates who have passed will be published in two parts, namely, an Honours list and a Pass list.

Doctor of Medicine.—The examination for this degree takes place twice in each year, commencing on the first Monday in December and on the first Monday in July. Candidates must have taken the degrees of M.B., B.S. not less than two years previously, but for those who have taken the M.B., B.S. degrees with honours, or have done certain original work, this period of delay may be reduced to one year. Candidates who have obtained their M.B. degrees in or before May, 1904, will not be required to hold the degree of B.S. before seeking the doctorate. They may present themselves for examination in one of the following branches, namely: (1) Medicine; (2) Pathology; (3) Mental Diseases; (4) Midwifery and Diseases of Women; (5) State Medicine; and (6) Tropical Medicine. Any candidate for the degree of M.D. may transmit to the Registrar, not less than two months before the commencement of the examination, a thesis or published work embodying the result of his own independent research in the branch of Medicine in which he is a candidate, and if the thesis be approved by the examiners, the candidate may be exempted from the written examination in that subject. The fee is £20, and for re-examination £10.

Master in Surgery.—The examination takes place twice in each year, and commences on the first Mondays in December and July. Candidates must produce certificates of having taken the degrees of M.B. and B.S. not less than two years previously (with certain exceptions, as in the examination for the M.D.) and of having subsequently held for at least six months a resident or non-resident Surgical hospital appointment. The fee is £20, and for re-examination £10.

Full details can be obtained free on application to the Academic Registrar, University of London, South Kensington, S.W. Students should apply direct to the University for this detailed information.

University of London, University College.—Faculty of Medical Sciences.—The Faculty of Medical Sciences comprises Physics, Chemistry, Botany and Zoology, also the Departments of Anatomy, Physiology, and Pharmacology (the Intermediate Medical Sciences), and the Departments of Hygiene and Public Health, and of Pathological Chemistry (Post-graduate Study). Full Preliminary and Intermediate Courses of study are provided for students desirous of obtaining the medical degrees of the University of London and as well as for students seeking the qualifications of other Universities and licensing bodies. University and King's Colleges have been constituted University Centres for the teaching of the Medical Sciences. A student can enter the College directly, and at the end of the first and second courses select the Medical School and Hospital.

Scholarships and Exhibitions.—Five annual University Entrance Exhibitions of £40 a year, six similar scholarships of £50 a year each in science subjects are annually awarded, and three Andrews' Entrance Scholarships. The Bucknill Scholarship of 135 guineas and two Exhibitions of 55 guineas are awarded on the results of an examination held in July. The Cluff Memorial Prize, value £15, is awarded for proficiency in Anatomy, Physiology, and

Chemistry; the Schäfer Prize in Physiology, value £18, for proficiency in Physiology; the Sharpey Physiological Scholarship, value £150, for Research in Physiology.

Composition Fees.—Course for the first Medical Examination, 26 guineas; course for the second Medical Examination, 58 guineas; course for the first Examination of the Conjoint Board, 21 guineas; course for the second Examination of the Conjoint Board, 58 guineas.

The London Medical Schools recognised by the University with the title of "University of London," are:—University College, King's College, St. Bartholomew's Hospital Medical School, St. Thomas's Hospital Medical School, Westminster Hospital Medical School, Guy's Hospital Medical School, London Hospital Medical College, Middlesex Hospital Medical School, Charing Cross Hospital Medical School, St. Mary's Hospital Medical School, Royal Army Medical College, London School of Tropical Medicine, School of Medicine for Women, and the Lister Institute of Preventive Medicine.

University of London—King's College, London, Strand.—In the medical division of the Faculty of Science students are prepared for their first examination (Chemistry, Physics, Biology), and for their second examination (Anatomy, Physiology, and Pharmacology), by the University Professors attached to King's College, London, and their assistants. At present four medical schools, viz., those attached to King's College Hospital, Westminster Hospital, St. George's Hospital, and Charing Cross Hospital, the teaching in which is restricted to the subjects of the final examinations, send their students to King's College for the purpose of tuition in the above-mentioned preliminary and intermediate studies. Numerous Scholarships and Prizes are offered.

Department of Public Health and Bacteriology.—This department of King's College is carried on in large laboratories in the Charing Cross Hospital Medical School Building, Chandos Street.

Full particulars as to courses of study, laboratory accommodation, hours, fees, etc., can be obtained on application to the Dean, Professor Halliburton, or the Secretary, Mr. Walter Smith, at the College.

UNIVERSITY OF DURHAM.

Two diplomas, one Licence and six degrees in Medicine and Hygiene are conferred—*viz.*, the degrees of Bachelor of Medicine, Bachelor of Surgery, Master of Surgery, Doctor in Medicine, Bachelor of Hygiene, and Doctor of Hygiene, Diploma in Public Health and Diploma in Psychiatry and the Licence in Dental Surgery. These degrees, diplomas and licence are open to both men and women.

For the degree of Bachelor of Medicine (M.B.), there are four professional examinations. The subjects are: For the first; elementary anatomy, biology, chemistry, and physics. For the second: Anatomy and physiology. For the third: Materia medica and pharmacy, pathology and elementary bacteriology, medical jurisprudence and public health; and for the fourth: Medicine, clinical medicine and psychological medicine, therapeutics, surgery and clinical surgery, midwifery, and diseases of women and children, and clinical gynæcology.

It is required that one of the five years of professional education shall be spent in attendance at the University College of Medicine and the Royal Victoria Infirmary, Newcastle-upon-Tyne. First and second year students (dating from registration) are not required to comply with the regulation regarding attendance on hospital practice. Candidates who have passed the First and Second Examinations of the University will be exempt from the First and Second Examinations of the Conjoint Board.

For the degree of Bachelor of Surgery (B.S.) every candidate must have passed the examination for the degree of Bachelor of Medicine of the University of Durham, and must have attended one course of lectures on operative surgery, and one course on regional anatomy. Candidates will be required to perform operations on the dead body, and to give proof of practical knowledge of the use of surgical instruments and appliances.

For the degree of Master of Surgery (M.S.) candidates must not be less than twenty-four years of age, and must satisfy the University as to their knowledge of Greek or German. In case they shall not have passed in either of these subjects at the Matriculation Examination for the M.B. degree, they must present themselves at Durham for examination in it at one of the ordinary examinations held for this purpose before they can proceed to the higher degree of M.S. They must also have obtained the degree of Bachelor of Surgery of the University of Durham, and must have been engaged for at least two years subsequently to the date of acquirement of the degree of Bachelor of Surgery in attendance on the practice of a recognised hospital, or in the naval or military services, or in medical or surgical practice.

For the degree of Doctor of Medicine (M.D.) candidates must be not less than twenty-four years of age, and must satisfy the University as to their knowledge of Greek or German. In case they shall not have passed in either of these subjects at the Matriculation Examination for the M.B. degree, they must present themselves at Durham for examination in it at one of the ordinary examinations held for this purpose before they proceed to the higher degree of M.D. They must also have obtained the degree of Bachelor of Medicine of the University of Durham, and must have been engaged for at least two years, subsequently to the date of acquirement of the degree of Bachelor of Medicine, in attendance on the practice of a recognised hospital or in the naval or military services, or in medical or surgical practice.

Candidates for any of the above degrees must give at least twenty-eight days' notice to the Secretary of the College of Medicine, Newcastle-on-Tyne. In the case of the M.D. (Essay) Examination, candidates must send in their essays six weeks before the date of the examination.

The New Royal Victoria Infirmary, containing 400 beds, was opened by the late King, in July, 1906. In the new infirmary adequate accommodation is provided for the study of the various special subjects, in addition to the ordinary clinical work. Practical midwifery can be studied at the Newcastle Maternity Hospital. Opportunities for practical study are also afforded by the Dispensary, City Infectious Diseases Hospital, Eye Infirmary, and at the Northumberland County Lunatic Asylum.

There are various appointments open to students, whilst the scholarships available are numerous and of considerable value.

Fees.—(*a*) A composition ticket for lectures at the college may be obtained—1. By payment of 80 guineas on entrance. 2. By payment of 50 guineas at the commencement of the first sessional year and 40 guineas at the commencement of the second sessional year. 3. By three annual instalments of 40, 33, and 22 guineas, respectively, at the commencement of the sessional year. A Composition Ticket for the course of lectures and practical work of the first two years of the curriculum may be obtained by the payment of 42 guineas on entrance. (*b*) Single courses of lectures, five guineas. (*c*) Fees for attendance on hospital practice: For three months' medical and hospital practice, six guineas; for six months, ten guineas; one year, fifteen guineas; composition fee in one payment, thirty-five guineas; or by two instalments—*viz.*, first year, twenty guineas; second year, eighteen guineas. In addition, two guineas yearly up to three years must be paid to the Committee of the Royal Infirmary. (*d*) Composition fee for lectures, &c., at the College for the Licence in Dental Surgery, 40 guineas. Composition fee for dental practical work at Newcastle Dental Hospital, 41 guineas.

A Licence in Dental Surgery has been instituted. Before admission to the Final Examination, each candidate must furnish evidence, (1) of having attained the age of 21 years, (2) of having undergone a three-years' pupilage in mechanical dentistry with a registered dentist, and (3) of having been engaged in professional study for at least four years subsequent to registration as a dental student. He must also sign such declaration as the University may determine, binding himself not to advertise for professional purposes. Examinations are held concurrently with the medical examinations, and the fees payable by candidates amount to £15.

The Senate of the University has decided to grant a Diploma in Psychiatry, full particulars of which may be obtained from the College Calendar.

Further particulars will be given on application to Prof. Howden, Secretary, University of Durham College of Medicine, Newcastle-on-Tyne.

UNIVERSITY OF MANCHESTER.

Candidates for degrees in medicine and surgery (M.B., Ch.B., M.D., Ch.M.) must attend classes in the University during at least two years, and for three years must pursue a course of medical study at any college or medical school recognised by the University.

They are required to have passed the Matriculation Examination, or such other examination as may from time to time be recognised for this purpose by the University. The Matriculation Examination is held in July and in September.

Before admission to the Degrees of Bachelor of Medicine and Surgery candidates are required to send in the usual certificates of age and study as at the other Universities. All candidates for these Degrees must have attended approved courses of both lectures and laboratory work, and must pass four examinations.

The final examination cannot be taken before the fifth year of medical study. The subjects of examination are as follows: 1, Medicine, systematic and clinical, including mental diseases and diseases of children; 2, Surgery, systematic, clinical, and practical; 3, Obstetrics and diseases of women; 4, Forensic medicine.

The regulations relating to the M.D. and Ch.M. Degrees can be obtained on application to the Registrar.

The first M.B. and Ch.B. is held in March, June, September, and December. The second examination is held in December, and in March; the third examination in March, June and December; the Final in June and December; the examination for Ch.M. in June only.

Fees.—Matriculation examination, £2, subsequent examination in the same year, 30s. First examination, £5; for any subsequent examination, £2. The fees for the Second Examination and for the Third and Final Examinations are the same as for the First Examination. A fee of £10 is payable on the conferring of the degree of M.D., a fee of £5 on the conferring of the degree of Ch.M.

The buildings include large laboratories, dissecting-rooms, library and reading-rooms, and are on the most modern principles. Students wishing to engage in anatomical, physiological, or pathological research will find excellent opportunity for study in the complete and well-furnished laboratories. Hospital practice is taken out at the Royal Infirmary, which contains 592 beds. The Cheadle Lunatic Asylum, St. Mary's Hospitals, the Southern Hospital, and other special hospitals also afford teaching facilities of great importance.

The numerous appointments are of considerable monetary value. The principal are:—The Leech fellowship of £100; Honorary Research Fellowships; Junior Research Fellowships in Public Health, two of the value of £50, each annually; Entrance scholarships in medicine, £100 (towards University and Infirmary fees); Ashby Memorial Research Scholarship in Diseases of Children, £100, awarded triennially; Dreschfeld Memorial Scholarship £30, awarded triennially; Turner Medical scholarship of £20 to students who have completed a course of medical study in the University; Robert Platt physiological scholarship of the value of £50; Robert Platt zoological and botanical scholarship, £50; Professor Tom Jones memorial surgical scholarship of £60, awarded annually; two Dauntesey medical scholarships, one of £45 and one of £35; John Henry Agnew scholarship in diseases of children, value £30, awarded annually; Graduate scholarship in medicine, £25, awarded annually; and many prizes. Robert Platt Exhibitions in Physiology, £15, awarded annually; Robert Platt Biological Exhibitions, £15, awarded annually; Sidney Renshaw Exhibitions in Physiology, £15, awarded annually; Professor Tom Jones Exhibition in Anatomy, £25, awarded annually.

Fees.—For courses of instruction for the degrees of M.B., and Ch.B., of the University:—For the first M.B. examination the total cost amounts to about 30 guineas payable on entry. A composition fee of 70 guineas, payable in three instalments of 30, 20, and 20 guineas, at the commencement of the second, third, and fourth years of studentship respectively, admits to the courses of instruction required for the degrees of M.B. and Ch.B.

Dental Fees.—The composition fee for candidates for the University degree of Bachelor of Dental Surgery is 60 guineas, and for candidates for the University diploma in Dentistry is 55 guineas, payable in two equal instalments at the beginning of the first and third years of studentship.

UNIVERSITY OF BIRMINGHAM.

The University of Birmingham grants Degrees of M.B., Ch.B., M.D., Ch.M., and also a B.Sc. in the subject of Public Health. As a rule, in order to obtain any of these Degrees it is necessary that a student shall have passed at least the first four years of his curriculum in attendance upon the classes of the University, but the Senate has power of recognising attendance at another University as part of the attendance qualifying for these degrees.

Degrees of Bachelor of Medicine and Bachelor of Surgery.—The student must have passed either the Matriculation Examination of the University or one of the following examinations, which will be accepted in lieu thereof for the present:—(*a*) The previous examination of the University of Cambridge; (*b*) Responsions of the University of Oxford; (*c*) The matriculation examination of any recognised University; (*d*) The leaving certificate (higher) of the Oxford and Cambridge Boards; (*e*) The Oxford or Cambridge senior local examination.

Matriculation Examinations are held in July and September each year.

Degrees of Doctor of Medicine and Master of Surgery.—At the end of one year from the date of having passed the Final M.B., Ch.B. Examination, the candidate will be eligible to present himself for the higher Degrees of either Doctor of Medicine or Master of Surgery or both, the regulations for which may be had upon application to the Dean. The University also grants a Degree and a Diploma in Public Health, and provides adequate instructions for the same.

The Composition Fee for University Courses for Degrees of M.B., Ch.B. is £85; the Composition Fee for Clinical Instruction at the General and Queen's Hospitals is £42; *total* cost for the full M.B., Ch.B. Curriculum including Examination Fees is £158 2s. 6d.

School of Dentistry.—The University grants the Degrees of Bachelor and Master of Dental Surgery (B.D.S. and M.D.S.), and a Diploma in Dental Surgery (L.D.S.). The whole of the instruction for which may be taken out in the University, with which is associated the Birmingham Dental Hospital. The Clinical instruction of Dental Students is carried out under the direction of the University Dental Clinical Board.

The fees for L.D.S. Diploma courses are as follows:—Composition Fee (University Courses), £60; Clinical Fees for Dental and General Hospital Instruction, £31 10s.; total cost for L.D.S. including Examination Fees, £114 15s.*

The total cost for Degree of B.D.S. and Diploma of L.D.S. is £149 1s.

The General and Queen's Hospitals.—The practices of these hospitals are amalgamated for the purpose of clinical instruction under the direction of the University Clinical Board, by whom all schedules will be signed and all examinations conducted. The hospitals have a total of upwards of 500 beds. 8,000 in-patients and 80,000 out-patients are treated annually, and many valuable posts are open to students at both.

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* Does *not* include fee for Mechanical Pupilage, which is 85 gns.

Further information can be obtained from Professor Peter Thompson, Dean of the Medical Faculty.

UNIVERSITY OF LIVERPOOL.

The Degrees in the Faculty of Medicine are Bachelor of Medicine and Bachelor of Surgery (M.B. and Ch.B.), Doctor of Medicine (M.D.), Master of Surgery (Ch.M.), and Master of Hygiene (M.H.). The course of study for the Degrees of Bachelor of Medicine and Bachelor of Surgery is of five years' duration, and of this period two years must be spent at the University, the remaining three years can be taken in any medical school approved by the University.

For the Degree of M.D., a thesis is required which may be presented not earlier than one year after graduation, as M.B., Ch.B.

The degree of Ch.M. is given after a period of at least one year of further study after graduation as M.B., Ch.B., on the results of an examination.

The degree of M.H. is given after two years' study and examinations, and includes the D.P.H.

Diplomas.—Diplomas have been instituted in Public Health (D.P.H.), Ophthalmic Surgery (D.Ch.O), Tropical Medicine (D.T.M.), and Veterinary Hygiene (D.V.H.). Special diplomas are also granted in Anatomy, Bacteriology, Bio-chemistry, and Parasitology after a course of study of three terms in the subject chosen and allied subjects.

Students may enter for the degrees of the University of Liverpool, or may study for the degrees, diplomas and qualifications of the other licensing bodies.

Hospitals.—The Clinical School of the University consists of four general hospitals—the Royal Infirmary, the David Lewis Northern Hospital, the Royal Southern Hospital, and the Stanley Hospital; and of five special hospitals—the Eye and Ear Infirmary, the Hospital for Women, the Infirmary for Children, St. Paul's Eye Hospital, and St. George's Hospital for Skin Diseases. These hospitals contain in all a total of 1,076 beds. The organisation of these hospitals to form one teaching institution provides the medical student and the medical practitioner with an unrivalled field for clinical education and study, and all are within easy access from the University. The period of hospital practice extends over the last three years of medical study. There are a large number of appointments to House Physicianships and Surgeonships both at the general and special hospitals, which are open to qualified students of the School. These appointments (20) in most cases carry salaries varying from £60 to £100 per annum.

Fellowships and Scholarships.—Fellowships, Scholarships, and Prizes of over £1,000 are awarded annually. Eight Fellowships, each of the value of £100, are awarded annually for research in Anatomy, Physiology, Pathology, Bacteriology, Gynæcology, and Bio-Chemistry, and in one or two cases are renewable. Two Lyon Jones scholarships, of the value of £21 each for two years, are awarded annually—a Junior Scholarship, open at the end of the first year of study to Liverpool University students in the subjects of the first M.B. Examinations, and a Senior Scholarship, open to all students in the school at the end of the second or third year of study, in the subjects of Anatomy, Physiology, Materia Medica, and Pharmacology. A University Scholarship of £25 awarded on the results of the second examination for the degree. The Derby Exhibition of £15 for one year is awarded in Clinical Medicine and Surgery in alternate years. Students may compete in their fourth and fifth years. A Clinical School Exhibition of £15 awarded under similar conditions. The Torr Gold Medal in Anatomy, the George Holt Medal in Physiology, the Kauthack Medal in Pathology, and the Robert Gee Book Prize, of the value of £5, for Children's Diseases.

Entrance Scholarships.—Two Robert Gee Entrance Scholarships, of the annual value each of £25 for two years, are offered annually for competition. The holder is required to take out the First M.B. Course for the University Degree in Medicine.

The University also grants a Diploma in Dental Surgery (L.D.S.) and Degrees in Dental Surgery (B.D.S. and M.D.S.). The courses of systematic instruction are given in the University buildings, five minutes walk from the Dental Hospital.

Communications should be addressed to the Dean, Professor J. M. Beattie, M.A., M.D., C.M. the University, Liverpool.

LIVERPOOL SCHOOL OF TROPICAL MEDICINE.

The Diploma of Tropical Medicine, University of Liverpool.—The school is affiliated with the University of Liverpool and the Royal Southern Hospital of Liverpool and the Royal Infirmary, Liverpool. The instruction given occupies six hours a day for five days a week during thirteen weeks. Each Course consists (1) of a systematic series of lectures on tropical medicine and sanitation delivered by the Professor of Tropical Medicine at the University; (2) of additional lectures on special African and other diseases delivered at the University; (3) of systematic lectures and demonstrations on tropical pathology, parasitology and bacteriology by the Walter Myers Professor, at the University; (4) of similar instruction on medical entomology by the Professor of Entomology at the University; (5) of clinical lectures and demonstrations delivered at the Royal Southern Hospital by the Physician in charge of the Tropical Ward. the Professor of Tropical Medicine. and the Walter Myers Professor; and of lectures or demonstrations by assistant teachers.

In December and April an examination is held by the University for its Diploma of Tropical Medicine (D.T.M.), which is open only to those who have been through the course of instruction of the school. The examination lasts three days, and consists (1) of papers on tropical medicine, tropical pathology, and tropical sanitation and entomology respectively; (2) of a clinical examination; and (3) of an oral examination.

The fee for the full course of instruction is thirteen guineas, with an extra charge of ten shillings and sixpence for the use of a microscope, if required. The fee for the examination is five guineas. Applications should be made to the Dean of the Medical Faculty, University of Liverpool, from whom prospectuses may be obtained.

Two University Fellowships of £100 a year each are open to students of the school, amongst others. Accommodation for Research work is to be had, both at the University laboratory of the school, and at its Research Laboratories at Runcorn (sixteen miles distant from Liverpool).

Since it was instituted 15 years ago the school has employed 45 different investigators paid out of its funds, and has despatched to the tropics 33 scientific expeditions, many of the workers having been taken from among its students. The work done by them has been published in twenty-one special memoirs with many plates and figures, besides text books and numerous articles in the scientific press. From the beginning of 1907, however, the Memoirs have been succeeded by the Annals of Tropical Medicine and Parasitology, published by the Committee, and open to outside contributors. (Apply to the Secretary, B10, Exchange Buildings, Liverpool). The Mary Kingsley Medal is awarded by the School for distinguished work in connection with tropical medicine, and has been given to Colonel Bruce, Professor Koch, Dr. Laveran, Sir Patrick Manson, Lord Lister, Professor Looss, Professor Danielewsky, Dr. Charles Finlay, Mr. W. M. Haffkine, Professor Golgi, Colonel Gorgas, Professor Theobald Smith, and Rt. Hon. Joseph Chamberlain, M.P., and others.

UNIVERSITY OF BRISTOL.

The University grants the conjoined degrees in the Faculty of Medicine of M.B., Ch B., the degree of M.D., Ch.M., B.D.S., and M.D.S.; also diplomas in Public Health (D.P.H.) and in Dental Surgery (L.D.S.).

The conjoined Degrees of M.B., Ch.B.—The curriculum occupies five years and a half. The University lectures and laboratory courses are attended in the large and well equipped new wing of the University. Hospital practice and Clinical instruction are provided in the allied hospitals, which together afford upwards of six hundred beds and a very large external midwifery department. Three years at least must be spent in the University, and two of them subsequently to passing the second examination.

Degree of B.D.S.—The curriculum occupies five years. Mechanical Dentistry may be studied in the new and well equipped University Laboratory under the supervision of a skilled mechanic. In this laboratory the whole of the mechanical work for both the Bristol Royal Infirmary and the Bristol General Hospital is done by the pupils. Lectures and ordinary laboratory work are attended in the University, the Metallurgical laboratory is in the Chemical department, and has been specially fitted for the purpose.

Diploma in Dental Surgery, L.D.S.—The curriculum occupies four years, and runs on very similar lines to that for the B.D.S. It is not, however, necessary to pass the matriculation examination, and some subjects required for the degree are omitted. Candidates for either the B.D.S. or L.D.S. must be registered Dental students.

Diploma in Public Health.—The necessary laboratory work is done in the University in the Chemical and Pathological departments. The remainder of the curriculum is taken under the Medical Officer of Health for the City and County of Bristol (Lecturer in Public Health) and the Assistant Medical Officer for the Port of Bristol (Demonstrator in Public Health).

N.B.—*Although the various courses are primarily designed for the University degrees and diplomas, equal attention is paid and equal facilities are offered to students who enter for the degrees of other Universities, such as the University of London, and for the diplomas of the various examining bodies.*

Women are admitted to all degrees and diplomas, and to the courses of study necessary for them. The University Hall of Residence is situated at Clifton, within a short distance of the University. Particulars of residence may be obtained from Miss M. C. Staveley, M.A., at the University.

Inclusive Fees.—For the M.B., Ch.B. curriculum, 140 guineas; for the B.D.S. curriculum (including mechanical pupilage), 190 guineas; for the B.D.S. curriculum (excluding mechanical pupilage), 115 guineas; for the L.D.S. curriculum (including mechanical pupilage), 168 guineas; for the L.D.S. curriculum (excluding mechanical pupilage), 93 guineas; for the D.P.H., 30 guineas. Arrangements can be made for paying these fees by instalments.

Appointments (Undergraduate).—Clinical Clerkships, Dresserships, also Ophthalmic, Obstetric, and Pathological Clerkships are tenable at the Bristol Royal Infirmary and the Bristol General Hospital. In these institutions the Dressers reside in rotation free of charge.

Appointments (Post-Graduate).—At the Bristol Royal Infirmary:—Two House Surgeons, £100 each per annum; two House Physicians, £100; Resident Obstetric and Ophthalmic House Surgeon, £75; Throat, Nose, and Ear House Surgeon, £75; Casualty Officer, £50: Dental House Surgeon, £100. All these appointments are made for twelve months, except that of Casualty Officer, which is for six months. From the resident officers a Senior Resident Officer is appointed at an additional salary of £30. At the Bristol General Hospital:—Senior House Surgeon, £150 per annum; Casualty House Surgeon, £105 per annum if another resident appointment has been previously held; two House Physicians, £80: House Surgeon, £80; Dental House Surgeon, £200 per annum. All these appointments are for six months, except that of Dental House Surgeon, which is for two years.

The Winter Session opens on September 30th.

UNIVERSITY OF LEEDS.

The school of medicine attached to this University was founded in 1831 as the Leeds Medical School. The building, erected on a site contiguous to the infirmary, contains one of the finest dissecting-rooms in the United Kingdom, extensive laboratories for physiology and pathology with the most recent improvements in fittings and apparatus, ample lecture-room accommodation, a large library, and separate museums for pathology and anatomy. Professors and lecturers are attached, and the clinical teaching is given by the physicians and surgeons attached to the Leeds General Infirmary, one of the largest in the United Kingdom, having 520 beds, with a staff of physicians and surgeons of considerable eminence. Ophthalmic demonstrations and demonstrations of skin diseases are given in the infirmary by surgeons in each department, where also are obtainable various clinical clerkships, dresserships, and other appointments; and an extern maternity charity is attached, at which the necessary attendance at labours can be taken. Besides the infirmary there is a large dispensary, a large hospital for infectious diseases, a hospital for women and children, and a maternity hospital, all of which are open to students of the school.

Scholarships, Prizes, etc.—(1) An entrance scholarship of £73 2s. 6d. There is also a Hardwick prize in clinical medicine, a McGill prize in clinical surgery, each of the value of £10, Thorp scholarship of about £25 a year in forensic medicine and hygiene, and a Scattergood prize of £5 in midwifery, besides silver and gold medals and other class prizes. The composition fee for attendance upon all the required courses of school lectures is £73 2s. 6d. for University students who have attended the preliminary scientific courses, and the same for non-University students, exclusive of chemistry and biology.

The composition fee for medical and surgical practice and clinical lectures is £42 in one sum, or two instalments of £22 each. These fees are not included in the composition fees for lectures and are payable separately.

A scholarship of £42 to cover the cost of medical and surgical practice is offered annually by the University.

Degrees and Diploma in Dental Surgery are obtainable at this University, being Bachelor of Dental Surgery (B.Ch.D.), and Master of Dental Surgery (M.Ch.D.). Candidates for the degree of Bachelor of Dental Surgery are required to have passed the Matriculation Examination, to have pursued thereafter approved courses of study for not less than five academic years, two of such years at least having been passed in the University subsequently to the date of passing Parts I. and II. of the first examination, and to have completed such period of pupilage or hospital attendance, or both, as may be prescribed by the Regulations of the University. No candidate shall be admitted to the degree who has not attained the age of twenty-one years on the day of graduation.

Candidates for the diploma in Dental Surgery are required to present certificates showing that they have attained the age of twenty-one years, that they have attended courses of instruction, approved by the University, extending over not less than four years, two of which must be spent in the University, and that they have completed a pupilage of three years, two of such years at least having been taken befor the First Professional examination. Candidates ar required to satisfy the Examiners in the several subjects of the following examinations: A preliminary examination in Arts; a Preliminary examination i Science; the First Professional examination; and the Final examination.

A Diploma in Public Health (D.P.H.) is granted after examination under the usual regulations, also a Diploma in Psychological Medicine.

UNIVERSITY OF SHEFFIELD.

By the Charter granted in 1905, this University is permitted to grant degrees in medicine. All its courses and all its degrees are open, without restriction, to both sexes. The new buildings of the University, opened by his late Majesty King Edward in 1905, are situated at the west end of the city, overlooking on two sides the adjoining Weston Park. The medical department occupies the entire north wing of the University quadrangle, and is within easy reach of the various hospitals, with which it is connected for clinical purposes.

These are as follows:—The Royal Infirmary contains 320 beds, and the Royal Hospital 101 beds. The practices of the two Institutions are amalgamated for the purpose of clinical instruction, giving a total of over 500 beds for the treatment of medical, surgical and special cases. During the last year over 6,000 patients passed through the wards of the two institutions, while those attending as out-patients numbered over 45,000. The Jessop Hospital for Diseases of Women contains 80 beds, with about 600 in-patients, and over 3,000 out-patients; also a Maternity Department, with about 450 in-patients per annum, and about 700 out-patient cases attended. Special courses on fevers are held at the City Fever Hospitals (600 bads), and on Mental Diseases at the South Yorkshire Asylum (1,004 beds).

Appointments.—The following are open to all students who have passed their examinations in anatomy and physiology:—Casualty Dresserships, Surgical Dresserships, Medical Clerkships, Pathological Clerkships, Ophthalmic Clerkships, Clerk to the Skin Department, etc.

Fees.—Composition fee of £80, payable in three instalments, viz.:—£24 at commencement of first year of study; £28 at commencement of second year of study; £28 at commencement of third year of study. This composition fee entitles the student to attendance on all the courses of lectures and practical classes, required for a degree course in the University, or for the ordinary qualifications in medicine and surgery of the examining boards.

Composition Fee for Medical, Surgical, Gynæcological and Obstetrical Hospital Practice (except Pharmacy).—Fee for the full period of hospital practice required by the examining boards:—£40 17s. 6d., payable in three instalments.

Dental Department.—In connection with the University there is a complete dental department, which is fully recognised by the various examining bodies, and students are able to get their full curriculum here.

Scholarships and Fellowships.—Entrance Medical Scholarship of the value of about £130, open to both sexes, awarded in June each year. Special Entrance Medical Scholarship of £100, open to women only. Four Town Trustees' Scholarships, value £50, tenable for three years. Town Trustees' Fellowship, value £75, open to graduates of the University, tenable for one year. Mechanics' Institute Scholarship, value £50, tenable for one year, and renewable for a second year. The Frederick Clifford Scholarship, value about £50 per annum, tenable for two years, open to graduates of the University; and the Kaye Scholarship, value about £22 10s. A Gold Medal is offered annually for the best student in clinical medicine and clinical surgery, also the John Hall Gold Medal in Pathology, which is awarded on the result of the examination in Pathology of Part A of Third M.B., Ch.B. Examination. A Bronze Medal is awarded annually to the student who has gained first place in the examinations for the full course in each year.

Degrees.—Candidates for a medical degree must have matriculated in the University or have passed such other examination as may be recognised for this purpose by the University and sanctioned by the Joint Matriculation Board. The subjects required by the General Medical Council must be included in the matriculation examination, or its recognised substitute. The degrees in medicine obtainable are Bachelor of Medicine and Bachelor of Surgery (M.B., Ch.B.), Doctor of Medicine (M.D.), and Master of Surgery (Ch.M.); conditions and particulars of which may be obtained on application to the Dean.

At the University of Sheffield post-graduate courses are held annually. These courses are specially arranged for practitioners, and the work done is mainly clinical and practical. A Diploma in Public Health is granted by the University.

UNIVERSITY OF WALES.

The School of Medicine, in University College, Cardiff, which is one of the constituent colleges of the University of Wales, has since its foundation, in 1883, prepared students for the Preliminary Scientific Examination of the University of London, and for the corresponding examinations of other licensing bodies. Chairs of Anatomy, Physiology and Pathology and Bacteriology and Lectureships in Materia Medica and Pharmacy and Histology and Embryology have been established, making it possible for students of medicine to spend three out of the five years of prescribed study at Cardiff. Arrangements with the managing committee of King Edward VII.'s Hospital, Cardiff, give students of the College the privilege of attending this large and well-ordered hospital, which is situated within five minutes' walk of University College. Many students, especially from Wales and Monmouthshire, avail themselves of the opportunities thus afforded to pursue the earlier part of the medical curriculum near home. All classes are open alike to both men and women students over sixteen years of age. The courses of instruction given at Cardiff are recognised as qualifying for the examinations of the Universities, Royal colleges, and other licensing bodies of Great Britain and Ireland. Having spent at least three years in study at Cardiff, and having passed the examinations in these years, a student may proceed to London or elsewhere and complete his qualifying course for a University degree or for a college diploma.

Students preparing for the first and second examinations of the Conjoint Board for England, or for the corresponding examinations of the Conjoint Board for Scotland, may compound for their classes by paying a single composition fee of £41 10s., or by paying £20 and £24 10s. at the beginning of their first and second years respectively. Those preparing for the First and the Second Examinations for Medical Degrees of the University of London may compound for their three years' instruction at Cardiff by paying a single composition fee of £63, or by paying £20, £28 and £21 at the beginning of their first, second and third years respectively.

In 1899 a department of Public Health was established, and lecturers in bacteriology and in public health and hygiene were appointed. Medical men preparing for the diploma in Public Health and Hygiene of the University of Wales can attend complete courses of lectures and laboratory instruction in this department. These courses are also recognised by the University of Cambridge, by the Royal Colleges of Physicians and Surgeons, by Victoria University, and other Examining Boards.

In the case of medical students, attendance on the class of hygiene and public health is accepted by the Universities of London and Cambridge, and by the Conjoint Examining Board of England.

Courses of lectures to midwives, adapted to the requirements of the Central Midwives Board, under the Midwives Act, are commenced in October, January, and April. The lectures are suitable both for pupil midwives and practising midwives, as well as for nurses who desire to enter for the examination for certification under the Act.

Scholarships and Free Studentships.—The attention of students about to matriculate is drawn to the entrance scholarships and Free Studentships which are offered at the college for competition in April, most of which may be held by medical students. Full particulars of the examination for these may be obtained from the Registrar, or from the Dean of the Medical Faculty.

THE ENGLISH COLLEGES.

The medical corporations in England are the Royal College of Physicians of London, the Royal College of Surgeons of England, and the Society of Apothecaries of London. The two Royal Colleges now co-operate to hold a series of examinations, on passing which the candidate receives the diploma of Licentiate of the Royal College of Physicians (L.R.C.P.), and Member of the Royal College of Surgeons (M.R.C.S.). The Society of Apothecaries grants a complete diploma (L.S.A.) in medicine, surgery, and midwifery.

CONJOINT EXAMINING BOARD IN ENGLAND.

Candidates for the above licences are required to complete five years of professional study at recognised medical schools and hospitals, after passing the preliminary examination, of which six months may be spent at an institution recognised by the Board, to comply with the following regulations and to pass the examinations hereinafter set forth.

Professional Examinations.—There are three examinations, each being partly written, partly oral, and partly practical. These examinations are held in the months of January, April, July, and October, unless otherwise appointed, fourteen clear days' notice before the day on which the examination commences being required, the candidate transmitting at the same time the required certificates. The subjects of the first professional examination are Part I., Chemistry; Part II., Physics; Part III., Elementary Biology; and Part IV., Practical Pharmacy. Candidates may present themselves immediately after passing the preliminary examination in general education, provided they are able to produce the certificates required. They must present themselves for examination in Parts I. and II. together, until they have reached the required standard to pass in both or in one of these parts, but they will not be allowed to pass in one part unless they obtain at the same time at least half the number of marks required to pass in the other part. Candidates may take Parts III. and IV. separately, or they may present themselves for the whole examination at one time. Practical Pharmacy may be taken with, or at any time before Part I. of the Final Examination. Candidates who shall produce satisfactory evidence of having passed an examination for a degree in medicine in any of the subjects of this examination conducted at a University in the United Kingdom, India, or in a British Colony, will be exempt from examination in those subjects in which they have passed.

The fee for admission to the first examination is as follows:—For the whole examination, £10 10s.; for re-examination after rejection in Parts I. and II., £3 3s.; and for re-examination in each of the other parts, £2 2s.

The subjects of the second examination are anatomy and physiology. Candidates will be required to pass in both subjects at one and the same time. The study of anatomy and physiology will not be recognised until candidates have passed in two of the first three parts of the first examination. Candidates will be admissible to the second examination fifteen months from the date of passing the required subjects of the first examination.

Candidates referred at the second examination will be required, before being admitted to re-examination, to produce certificates that they have pursued, to the satisfaction of their teachers, in a recognised place of study, their anatomical and physiological studies during a period of not less than three months subsequently to the date of their reference.

The fees for admission to the second examinations are: £10 10s. for the whole examination, and £6 6s. for re-examination after rejection.

The subjects of the third and final examinations are:—Part I. Medicine, including medical anatomy, pathology, practical pharmacy, therapeutics, forensic medicine and public health. Candidates who have passed in practical pharmacy at the first examination will not be re-examined in that subject at the third examination. Part II. Surgery, including pathology, surgical anatomy, and the use of surgical appliances. Part III. Midwifery and gynæcology. Candidates may take this examination in three parts separately, or they may present themselves for the whole examination at one time, provided that Midwifery may not be taken until the whole curriculum is completed.

Fees for admission to the third or final examination are as follows:—For the whole examination, £21 0s. Part I.—For re-examination in medicine, including medical anatomy, pathology, therapeutics, forensic medicine and public health, £5 5s.; for re-examination in practical pharmacy (if taken at this examination), £2 2s. Part II.—For re-examination in surgery, including pathology, surgical anatomy, and the use of surgical appliances, £5 5s. Part III.—For re-examination in midwifery and gynæcology, £3 3s.

Candidates referred on the third or final examination, or on one or more of the three parts into which they may have divided it, will not be admitted to re-examination until after the lapse of a period of not less than three months from the date of rejection, and will be required, before being admitted to re-examination, to produce a certificate, in regard to medicine and surgery, of having attended the medical and surgical practice, or the medical or surgical practice, as the case may be, during the period of his reference; and in regard to midwifery and diseases peculiar to women a certificate of having received, subsequently to the date of his reference, not less than three months' instruction in that subject by a recognised teacher. A candidate who possesses a registrable qualification is admissible to re-examination without producing additional certificates.

REGULATIONS FOR COLONIAL, INDIAN, AND FOREIGN CANDIDATES, AND UNIVERSITY CANDIDATES.

Persons holding a Colonial, Indian, or a foreign qualification entitling them to practise medicine in the country of origin, and conferred after a course of study and examinations equivalent to those required by the Royal Colleges, are admissible to the second and third (final) examinations forthwith.

Members of a University in the United Kingdom and Graduates of Medicine of certain recognised Colonial or Foreign Universities are, under certain conditions, eligible for admission to the third (final) examination two years after passing at the University in the subjects included in the first and second examinations of the Board.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.

MEMBERS.—The membership of the College is granted after examination to persons above the age of 25 years who do not engage in trade, do not dispense medicine, and do not practise in partnership. This diploma is only granted to persons already registered, or who have passed the final examination for the licence.

Medical graduates of a recognised University are admitted to a pass examination, but others must have passed the examinations required for the licence of the College. The examination, which is held in January, April, July, and October, is partly written and partly oral. It is directed to medicine, and is conducted by the president and censors. Candidates under 40, unless they have obtained a degree in arts in a British University, are examined in Latin, and either Greek, French, or German. Candidates over 40 are not so examined, and the examination in medicine may in their case be modified under conditions to be ascertained by application to the Registrar. The fee for the membership is £42, but if the candidate is a licentiate £15 15s. is deducted. In either case £6 6s. has to be paid before examination.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

MEMBERSHIP.—The candidates are now subject to the regulations of the Conjoint Board.

FELLOWSHIP.—The Fellowship of the College of Surgeons is granted after examination to persons at least 25 years of age, who have been engaged in professional studies for six years. There are two examinations—the first in anatomy and physiology, which may be passed after the third winter session; the second chiefly directed to surgery, which may be passed after six years of professional study. The second examination may be passed before attaining the age of 25, but the diploma is not granted until that age is reached. Candidates for this part of the examination must have passed the final examination of the Conjoint Board in England, and have been admitted members of the College before they can be admitted thereto, except in the case of graduates in medicine and surgery of recognised Universities of not less than four years' standing. The diploma of Fellow is granted to successful women candidates subject to the provisions of the Medical Act, 1876, and of the Bye-Laws of the College.

FEES.—First examination, £5 5s.; second examination, £12 12s. The total fee payable on admission to the Fellowship is £31 10s., except for members, when the fee is £21. (The examination fees to the extent of £17 17s. count as part of the total fee.) Further information can be obtained on application to the Secretary of the Examining Board in England, Examination Hall, Queen Square, Bloomsbury, London, W.C.

Society of Apothecaries of London.

Primary Examination.—This examination consists of two parts: Part I.—Elementary biology, Chemistry, Chemical physics, including the elementary mechanics of solids and fluids; Heat, Light, and Electricity. Practical chemistry, Materia medica, and Pharmacy. A synopsis indicating the range of the subjects may be obtained on application. Part II.—Anatomy and Physiology and Histology. The examination is held in January, April, July, and October.

The final examination is held monthly, except the month of September, and is divided into Sections 1 and 2.

Section 1 consists of three parts:

Part I. includes: Principles and Practice of Surgery, Surgical Pathology, and Surgical Anatomy, Operative Manipulations, Instruments and Appliances.

Part II. includes: (*a*) The Principles and Practice of Medicine, including Therapeutics, Pharmacology, Pathology, and Morbid Histology. (*b*) Forensic Medicine, Hygiene, Theory and Practice of Vaccination; and Mental Diseases.

Candidates passing either (*a*) or (*b*) will not be re-examined therein.

Part III. includes: Midwifery, Gynæcology, and Diseases of New-born Children, Obstetric Instruments and Appliances. Candidates may enter for Parts I., II., and III. together or separately.

Section 1 of the Final Examination, or any part thereof, cannot be passed before the expiration of 45 months from the date of commencement of medical study.

Section 2.—This section consists of two parts:

Part I.—Clinical Surgery.

Part II.—Clinical Medicine and Medical Anatomy. Section 2 cannot be passed before the expiration of the fifth year.

Fees.—Primary examination, £5 5s.; final examination, £15 15s.; total fee, £21.

Further information, with particulars as to the course of study and of the certificates required, can be obtained from the Secretary to the Court of Examiners, Apothecaries' Hall, E.C.

This licence is a registrable diploma in Medicine, Surgery, and Midwifery, and qualifies the holder to compete for medical appointments in the Army, Navy, and Indian Services, also for Poor-law, Civil, and Colonial appointments.

The Gillson scholarship in Pathology of the annual value of £90, tenable for one year, is open to Licentiates of the Society and to candidates for the diploma who obtain it within six months of election to the scholarship. An examination in the art of prescribing is held annually, in January, at which the following prizes are awarded:—A gold medal of the value of £6; a silver medal, and a prize of books.

LONDON SCHOOLS.

The Schools of Medicine in the Metropolis are the following, the scholarships, prizes, students' appointments, fees, &c., being set forth in connection with each place named. The names of the hospital staff, lecturers, residential terms, and detailed information will be found, as a rule, in our advertisement columns.

St. Bartholomew's Hospital.—This hospital has 750 beds, and for many years past the school attached has had a larger number of students than any other medical school in London. Laboratories have been specially equipped for the study of pathology, bacteriology, public health, chemistry, biology, physics, and chemical pathology, and two additional operation theatres, new casualty and out-patients' departments, eight special departments, quarters for the junior staff, a dining-hall and a common-room for students have recently been built. Collegiate residence is permissible, subject to the ordinary rules.

Appointments.—Ten house physicians and ten house surgeons are appointed annually. During the first six months of office they act as "junior" house physicians and house surgeons, and receive a salary of £25 a year. During their second six months they become "senior" house physicians and house surgeons, and are provided with rooms by the hospital authorities, and receive a salary of £80 a year. A resident midwifery assistant, an ophthalmic house surgeon, and a house surgeon for diseases of the throat and nose are appointed every six months, and are provided with rooms and receive a salary of £80 a year. Two assistant anæsthetists are appointed, and receive salaries of £120 and £100 a year respectively. An extern midwifery assistant receives a salary of £80 a year. Chief assistants and clinical assistants are also appointed in each of the Medical Surgical special departments.

Scholarships, &c.—There are three Entrance scholarships in science, £75, £75, £150, tenable for one year, and an Entrance Scholarship in Arts, value £100, and the Jeaffreson exhibition, value £50; at the end of first year four junior scholarships of £30, £20, £25, £15, respectively; Treasurer's prize for practical anatomy; at end of second year Foster prize in practical anatomy; senior scholarship, value £50, for anatomy, physiology, and chemistry; Wix prize, Hichens prize, for Senior Students, two Brackenbury scholarships, of £39, in medicine and surgery; Bentley prize, for reports of cases; the Kirkes gold medal for clinical medicine, with scholarship of £30. Shuter scholarship of £50; Skynner prize of £15; Sir G. Burrows' prize of £10; Matthews Duncan prize, medal and about £20; Willett medal and Walsham prize; Holden Research Scholarship in Surgery, value £105; Lawrence Research scholarship and gold medal, value £115 for pathology.

Composition Fees.—(1) For students commencing their medical studies, one sum on entrance, 165 guineas; or by four instalments of 45 guineas. (2) For students who have passed an examination in preliminary science, in one sum on entrance, 145 guineas; or by instalments. (3) For students who have finished two years of medical study but have not passed an examination completing their anatomical and physiological studies; if paid in one sum on entrance, 110 guineas; or by annual instalments. (4) For students who have completed three years of medical study but have not passed an examination in anatomy and physiology, 90 guineas; or by annual instalments. (5) University students who have passed an examination completing their anatomical and physiological studies, in one sum, 80 guineas; or by instalments.

Fees for preliminary scientific students:—20 guineas; for laboratory instruction for D.P.H., 15 guineas. For Primary F.R.C.S. Class, 10 guineas, for Final F.R.C.S. Class 20 guineas. Fuller details will be supplied on application to the Dean.

Charing Cross Hospital.—The School attached to this Hospital is situated in Central London, and contains new pathological and bacteriological laboratories, pharmacological, materia medica, and public health, laboratories, theatre. Clinical instruction is given in medicine, surgery, and obstetrics, and in the special departments, diseases of the skin, diseases of children, mental disorders, the throat, the eye, nose and ear, and in the orthopædic, Röntgen and electrical departments.

The school arranges for a complete education in all departments, with special teachers for all preliminary and intermediate subjects.

By arrangement with the University of London, all students for the Primary and Intermediate portions of the curriculum carry out the necessary courses of instruction at King's College Laboratories, situated within a few minutes' walk from the Hospital. The entire teaching of the school is devoted to pathological, clinical and other subjects of final studies.

Appointments.—Salaried resident medical officer, medical and surgical and obstetric registrars (annual). Twelve resident house physicians, twelve house surgeons, and two obstetric officers are appointed each year, after competitive examinations.

Fees.—The fees for the five years' curriculum may be paid either by composition fee, in one sum, on joining, or by sessional payment system.

London University Students.—10 guineas entrance, and 25 guineas annually. Composition fee (5½ years) 120 guineas.

Conjoint Diploma Students.—10 guineas entrance, 22 guineas annually. Composition fee (5 years), 110 guineas. Payment may also be made for individual classes and hospital practice when taken separately.

Final Students.—Students of any university in the United Kingdom who have passed the examinations in anatomy, physiology, chemistry, and other preliminary subjects, may here complete their studies on payment of an annual fee of 25 guineas, or of 55 guineas (3 years' course) in one sum.

The fees for *Dental Students* for the two years' curriculum may be paid :—(*a*) in one sum of 45 guineas on entry (2 years' course) ; (*b*) an annual fee of 25 guineas.

Prospectus and further information can be obtained on application to the Dean (Dr. William Hunter, F.R.C.P.), Medical College, Charing Cross Hospital, W.C.

St. George's Hospital. — This hospital is situated in the West End, facing Hyde Park, and is readily accessible from all parts of London or the suburbs. It has recently undergone extensive alterations and improvements, has a service of 436 beds, of which 100 are at the Atkinson-Morley Convalescent Hospital at Wimbledon, and contains special wards for ophthalmic cases and diseases of women.

Appointments.—Eight house physicians and eight house surgeons, entitled to reside and board in the hospital free of expense ; twelve general assistants, six assistants in the special departments. Candidates for the above offices are selected quarterly by competition from among the perpetual pupils, sixteen pupils being in office at any one time. Obstetric assistant with a yearly salary at the rate of £50 and board and residence in the hospital ; assistant curator with a salary of £100 ; a medical registrar, with a salary of £200 per annum ; a surgical registrar with a salary of £200 per annum ; a resident anæsthetist with a salary of £100 per annum ; an administrator of anæsthetics with a salary of £50 and three with salaries of £30 per annum. All offices are open to candidates without additional fee.

There are two Scholarships open to University students, of 70 guineas and £50, particulars of which will be furnished by the Dean.

The St. George's Hospital Club has smoking and luncheon rooms on the Hospital premises and an athletic ground of 14½ acres at Wimbledon, and a football ground and tennis courts have been laid out.

Fees.—For first year, £21 or £26 5s., according to the course. For second and third years, £63 in two instalments. Students entering their names on the books before commencing the preliminary or intermediate subjects pay no entrance fee. Fees for clinical students : Entrance fee, 10 guineas ; annual composition fee, 30 guineas. Fees for dental students : Two annual composition fees of 15 guineas for the Hospital Practice and Lectures on Medicine and Surgery required for L.D.S. Examination.

Guy's Hospital.—This hospital is situated on the South side of London Bridge, and contains 618 beds in constant occupation. There are special wards for ophthalmic and obstetric cases, eight beds in the latter being appropriated for difficult cases of labour. Some beds have also been set apart for diseases of the ear and throat, and an "isolation" ward for cases of infectious diseases arising in the hospital. Attached to the hospital is a large residential college with rooms for about sixty men, whilst for students who prefer to live in the suburbs, no other hospital is so conveniently placed, the railway accommodation being good and close at hand. There is a complete School of Dental Surgery at this Institution, which is recognised by the Royal College of Surgeons of England ; the facilities thus afforded of completing the whole course of dental study including the pupilage in mechanical dentistry within the walls of one hospital will be appreciated by those intending to practise dentistry.

Appointments.—Eight house surgeons, eight house physicians, sixteen out-patient officers, sixteen assistant house surgeons, twelve obstetric residents, two ophthalmic house surgeons, twenty-four clinical assistants, and ninety-six dressers are selected annually from the students according to merit, and without payment. There are also a large number of junior appointments, every part of the hospital practice being systematically employed for instruction.

Scholarships.—Open scholarships of £120, £100 and £50 in biology, chemistry and physics., classics, mathematics and modern languages, and two open scholarships of £75 and £35 for University students in two of the following subjects :—Anatomy, physiology, pharmacology, general pathology and organic chemistry. The following are the scholarships,prizes and medals open to students at the hospital :—Junior prizes for general proficiency, £20, £15, £10 ; Hilton prize for dissection, £5 ; Michael Harris prize for anatomy, £10 ; Sands Cox scholarship for physiology, £15 ; Wooldridge prize for physiology, £10 ; Beaney prize in pathology, £34 ; Golding-Bird prize in bacteriology, gold medal and £20 ; Treasurer's gold medal in clinical medicine ; Treasurer's gold medal in clinical surgery ; Beaney studentship in materia medica (tenable for 3 years), annually £31 10s. ; Gull studentship in pathology (tenable for 3 or 5 years), annually £150. The Arthur Durham travelling scholarship of the value of £100, triennially ; Oldham Prize in Ophthalmology, £30 annually

Fees.—A new system for payment of composition fees has been instituted at this school. Particulars may be obtained on application to the Dean, Guy's Hospital, London Bridge, S.E.

University of London—King's College, London, Strand.—In the medical division of the Faculty of Science students are prepared for their first examination (Chemistry, Physics, Biology), and for their second examination (Anatomy, Physiology, and Pharmacology), by the University Professors attached to King's College, London, and their assistants. At present four medical schools, viz., those attached to King's College Hospital, Westminster Hospital, St. George's Hospital, and Charing Cross Hospital, the teaching in which is restricted to the subjects of the final examinations, send their students to King's College for the purpose of tuition in the abovementioned preliminary and intermediate studies. Numerous Scholarships and Prizes are offered.

Department of Public Health and Bacteriology.—This department of King's College is carried on in large laboratories in the Charing Cross Hospital Medical School Building, Chandos Street .

Full particulars as to courses of study, laboratory accommodation, hours, fees, etc., can be obtained on application to the Dean, Professor Waterston, or the Secretary, Mr. Walter Smith, at the College.

King's College Hospital.—The hospital is now situated at Denmark Hill, S.E., and in it there are 280 beds. The student, who pays a composition fee for the whole medical curriculum, carries out his preliminary and intermediate medical studies at King's College, Strand, and enters the hospital when he has passed his examination in anatomy and physiology. The hospital contains special beds for diseases of women, children, eye, ear and throat cases. There are also dental, skin, X-ray, and photographic departments. There are well-equipped pathological laboratories, and a fine collection of pathological specimens. The various athletic clubs, students' societies, and the Common Room are now under the management of the Clubs and Societies' Union.

Scholarships.—Four of £50 : one in arts and one in science, and two entrance scholarships for university students ; a senior scholarship for fifth year students, and many special and class prizes are open for competition amongst students.

Appointments.—Senior medical, surgical and obstetric tutorships, Sambrooke medical and surgical registrarships, tenable for two years, each £50 per annum. Resident hospital appointments—*viz.*, casualty officer, senior and junior house physicians, physician accoucheur's assistant and assistant house accoucheur; house anæsthetist; assistant clincal pathologist; and three house surgeons, with free board and residence at the hospital; and senior and junior clinical assistants in special departments every six months.

F.R.C.S. Examinations.—Special classes are arranged for the final F.R.C.S. examinations. Further particulars can be obtained post free from the Dean, Dr. H. Willoughby Lyle, or the Secretary, Mr. Clifton Kelway, King's College Hospital Medical School, Denmark Hill, S.E.

Fees.—The fees payable by full students for the Course of Advanced Studies, whether for the University Degrees or for the Examinations of the Conjoint Examining Board, are: 80 guineas if paid in one sum; 82 guineas if paid in instalments, as follows: 10 guineas at entrance; first payment, 40 guineas on entering the Hospital; 32 guineas at commencement of second year.

These fees also include membership of the Hospital Clubs and Societies' Union for three years.

Composition fees have been arranged for the complete medical courses.

(1) University of London Course, including the Preliminary Scientific, Intermediate, and Final Course. Fee, 150 guineas.

(2) Conjoint Examining Board Course, including the courses for the 1st, 2nd, and 3rd examinations. Fee, 150 guineas.

The London Hospital.—This hospital is the largest in Great Britain, containing, as it does, 922 beds. It has, moreover, wards and a teaching staff for every special department in the domain of medicine; the scholarships and prizes are many and valuable.

Appointments.—The salaried appointments open to students are those of medical registrars three, surgical registrars three, obstetric registrars one, aural registrars two, medical, surgical and obstetric tutors; senior dressers to out-patients; clinical assistants in the medical, surgical, ophthalmic, aural, light and skin, orthopædic, and electrical departments. There are also six resident house physicians and nine resident house surgeons, two accoucheurs, seven receiving-room officers, two emergency officers, and three pathological assistants. Also unpaid clinical assistantships in the various special departments. In addition there are numerous assistantships and clerkships and dresserships in the various departments.

Scholarships and Prizes.—At Entrance: Price scholarships in science, £100; in anatomy and physiology, £52 10s.; entrance scholarship in science, £50; Epsom scholarship, £126; Buxton scholarships in arts, £31 10s. After Entrance: anatomy and physiology prize, £25; Letheby prizes, £25; prizes in clinical medicine, surgery and obstetrics, £20 each; Duckworth Nelson prize, £10; Hutchinson prize, £40; Sutton prize, £20; Sir Andrew Clark prize, £26; Anderson prizes, £9; dressers' prizes, £40; practical anatomy prizes, £10; Douro Hoare prize, £5; Wynne Baxter prize, £5 5s.

Special classes for the 1st and 2nd M.B.Lond., the primary and final Fellowship, and other examinations are held. Those for the final and primary F.R.C.S. commence on September 2nd.

Fees for Full Course.—Entrance Fee 20 guineas; annual Fee 30 guineas.

Special entries can be made either for single courses of lectures or for hospital practice. The Students' Hostel has recently been extended. Residential accommodation is obtainable at a very reasonable rate close by, or in the suburbs a few minutes' distant by train.

A Dental School is attached to the Hospital and provides the Course of Instruction for the Dental Diploma examinations.

Fuller particulars can be obtained of the Dean, Professor William Wright, M.B., D.Sc., F.R.C.S.

St. Mary's Hospital.—This Hospital is situated at Paddington, near the terminus of the Great Western Railway, and at present contains 305 beds, in which 31, in the Clarence Wing, are devoted to treatment by Therapeutic Inoculation. An additional Operating Theatre has recently been opened in this wing. The Inoculation Department, instituted in 1906, has greatly expanded, and occupies a series of rooms in the new wing of the Hospital.

The Department is under the personal supervision of Sir Almroth Wright, F.R.S.

In 1912 a new Casualty Department was opened, with increased accommodation.

The Athletic Ground is situated at Park Royal, Acton, within easy reach of the Medical School. This provides ample accommodation for the various athletic clubs, and possesses a good pavilion.

Appointments.—All clinical appointments in the hospital are free to students of the Medical School, and the resident medical officers are chosen by competitive examination. Six house physicians, six house surgeons, four obstetric officers, and two resident medical officers to the inoculation wards are appointed in each year, and receive board and residence in the Hospital. Four casualty house surgeons, and two resident anæsthetists are appointed annually, the term of office being six months. They receive a salary at the rate of £100 per annum with board and residence.

Scholarships, &c.—One scholarship in natural science of the value of £100, open to any gentleman who has not completed a winter session of study at a medical school. One scholarship of the value of £50 and one of the value of £25—under the same conditions. Two scholarships, each of 50 guineas, open to University Students. The scholarships will be awarded by examination on September 21st, 22nd, 23rd.

Fees.—Fee for attendance on the full five years' curriculum of hospital practice and all lectures, demonstrations, and special tutorial classes, £140, paid in one sum on entering the school; or in instalments, £145.

Payments may be made by annual fees, as an alternative to composition fees.

Students who have completed their examinations in anatomy and physiology at the Universities of Oxford, Cambridge, or other University, are admitted as perpetual pupils on payment of a fee of 65 guineas in one sum, or 70 guineas in two annual instalments.

Complete Curriculum.—The Medical School provides complete instruction for the various medical degrees and diplomas, including courses of preliminary scientific and intermediate subjects, which are recognised by the University of London as approved courses for internal students. Students may join in October, January, or April.

The Middlesex Hospital.—The Hospital and Medical School are centrally situated, and within a few minutes' walk of the principal tube and railway lines of the Metropolis.

The Hospital contains 440 beds, including special wards for cancer cases, maternity and gynæcological cases, and for diseases of the skin and eye. The cancer wing (containing 90 beds) and special investigation laboratories offer unrivalled opportunities for the study of cancer, both in its clinical and pathological aspects. In the electro-therapeutical department students obtain instruction in the treatment of lupus and cancer by the X-ray method.

The Hospital and Medical School are fully equipped for the theoretical and practical teaching of all the subjects of the medical curriculum, and for the Diplomas in Public Health. The Bland Sutton Institute of Pathology, just completed, is under the charge of a Director. It contains a new lecture theatre, large laboratories for teaching purposes and smaller rooms fully equipped for the carrying out of research work. Special classes are held to prepare students for the intermediate examinations of the Universities, and for the primary and final examinations for the F.R.C.S. (England) Diploma. There is a residential college in the hospital for a limited number of students.

Hospital Appointments.—All appointments are made without fee of any kind, and the following appointments are made annually:—Six house physicians, eight house surgeons, two obstetric and gynæcological house surgeons, two casualty medical officers, two casualty surgical officers, and two resident officers to the special departments. Non-resident qualified clinical assistants are appointed to assist in the various out-patients' departments.

Scholarships, Prizes, etc.—Three entrance scholarships, value £100, £50, and £25, and a University Scholarship, value £50 (for Oxford and Cambridge students), are awarded annually in September. A Freer Lucas Scholarship, value £126, for students of Epsom College, is awarded annually on the nomination of the headmaster. There are also two Broderip Scholarships, value £60 and £40 respectively; the Lyell Gold Medal and Scholarship, value £55 5s.; the John Murray Medal and Scholarship, value £25 (awarded every third year); the Freeman Scholarship, value £30; the Hetley clinical prize, value £25; the Leopold Hudson prize, value 11 guineas; and the second year's exhibition, value 10 guineas. There are also numerous class prize examinations. In connection with the cancer investigation department, the following scholarships are awarded:—Richard Hollins Research Scholarship, value £105; Salters' Company Cancer Research Scholarship, value £100; and a Cancer Research Scholarship, value £60.

Fees—The composition fee for the curriculum for the diplomas of the Conjoint Board or Society of Apothecaries is 135 guineas; for the curriculum for the Degrees of the University of London, 145 guineas; for those who have passed the first examination for medical degrees, 120 guineas; those who have completed their anatomical and physiological studies, 70 guineas. The fee for dental students is 54 guineas. The fees may be paid by instalments.

The Amalgamated Students' Club includes: The Medical Society, The Common Room Society, The Cricket and Football Clubs, etc. The Athletic Ground, which is eight acres in extent, is situated within easy access of the Hospital—at Park Royal. A subscription to the Amalgamated Students' Club is payable by all General and Dental Students.

The Winter Session 1914-15 opens on October 1st at 3 p.m. The Introductory Address will be delivered by C. Hubert Bond, M.D., D.Sc., after which the prizes will be presented by His Serene Highness Prince Alexander of Teck, G.C.B., G.C.V.O., D.S.O.

St. Thomas's Hospital.—This Hospital, with medical school attached, is situated on the southern Embankment of the Thames, facing the Houses of Parliament, and contains 602 beds, in constant use. The school buildings, which are separated from the Hospital by a quadrangle, comprise numerous theatres, laboratories, and class rooms, which are well adapted for the modern teaching of large bodies of students in all subjects of the medical curriculum. There is a large library and reading-room, and a very complete museum and gymnasium.

Appointments are open to all students. A resident assistant physician and a resident assistant surgeon are appointed annually at a salary of £150 with board and lodging. Four hospital registrars, two at an annual salary of £100 each, and two at £50 each, are appointed yearly. The tenure of these offices may be renewed for a term not exceeding two years. Four resident house physicians, four house surgeons, eight casualty officers, two resident obstetric house physicians, and two ophthalmic house surgeons are appointed each six months, also out-patient officers, and clinical assistants in the special departments. two research assistants are appointed annually at a salary of £200 per annum.

Scholarships, Prizes, etc.—Five entrance scholarships are offered for competition in July and September—*viz.*, one of £150 and one of £60 in chemistry, physics, and biology at the commencement of the second year; one of £50 open to University students who have passed in anatomy and physiology, for a medical degree in any of the Universities of the United Kingdom, and have not entered as students in any London Medical school, and two scholarships in arts giving free tuition for the first year of curriculum. Numerous scholarships, prizes, and medals are open to competition throughout the whole career of a student, including a Fellowship of £100 given by the Salters' Company for research in pharmacology, and the Louis Jenner research scholarship, £60, for pathological research.

Special courses of instruction for the First Professional Examination and Intermed., M.B.Lond., for the Oxford and Cambridge examinations, and for the Primary and Final F.R.C.S. are held throughout the year.

The prospectus of the school may be obtained on application to Mr. G. Q. Roberts, Secretary of the Medical School.

Fees.—A system for payment of composition fees is in operation. Full details may be obtained of the Secretary.

University of London, University College.—Faculty of Medical Sciences.—The Faculty of Medical Sciences comprises Physics, Chemistry, Botany and Zoology, also the Departments of Anatomy, Physiology, and Pharmacology (the Intermediate Medical Sciences), and the Departments of Hygiene and Public Health, and of Pathological Chemistry (Post-graduate Study). Full Preliminary and Intermediate Courses of study are provided for students desirous of obtaining the medical degrees of the University of London and as well as for students seeking the qualifications of other Universities and licensing bodies. University and King's Colleges have been constituted University Centres for the teaching of the Medical Sciences. A student can enter the College directly, and at the end of the first and second courses select the Medical School and Hospital.

Scholarships and Exhibitions.—Five annual University Entrance Exhibitions of £40 a year, six similar scholarships of £50 a year each in science subjects are annually awarded, and three Andrews' Entrance Scholarships. The Bucknill Scholarship of 135 guineas and two Exhibitions of 55 guineas are awarded on the results of an examination held in July. The Cluff Memorial Prize, value £15, is awarded for proficiency in Anatomy, Physiology, and Chemistry; the Schäfer Prize in Physiology, value £18, for proficiency in Physiology; the Sharpey Physiological Scholarship, value about £150, for Research in Physiology.

Composition Fees.—Course for the first Medical Examination, 26 guineas; course for the second Medical Examination, 58 guineas; course for the first Examination of the Conjoint Board, 21 guineas; course for the second Examination of the Conjoint Board, 58 guineas.

The London Medical Schools recognised by the University with the title of "University of London," are:—University College, King's College, St. Bartholomew's Hospital Medical School, St. Thomas's Hospital Medical School, Westminster Hospital Medical School, Guy's Hospital Medical School, London Hospital Medical College, Middlesex Hospital Medical School, Charing Cross Hospital Medical School, St. Mary's Hospital Medical School, Royal Army Medical College, London School of Tropical Medicine, School of Medicine for Women, and the Lister Institute of Preventive Medicine.

University College Hospital and Medical School.—*Entrance.*—A student may enter the school as soon as he has passed the University of London Matriculation Examination, or one of the other qualifying preliminary examinations. In this case he will pursue his preliminary and intermediate studies at University College, and his final medical studies at University College Hospital Medical School. The student who has completed his preliminary and intermediate medical studies elsewhere, may enter the University College Hospital Medical School for his final medical studies only. Qualified medical men and others who can produce evidence of sufficient qualifications may be admitted to special departments for the purposes of research, or to hospital practice for certain definite periods.

University College Hospital now accommodates 305 in-patients, and possesses extensive out-patient and special departments.

Thirty-eight clinical appointments, eighteen of which are resident, are filled up by competition during the year, and are open to students at the hospital without extra fee.

The new medical school provides for lectures, demonstrations and practical work in all the final subjects of the medical curriculum. There are three lecture demonstration theatres for the teaching of morbid anatomy, bacteriology, and chemical pathology; also rooms equipped for the teaching of operative surgery and surgical anatomy, and two large lecture theatres.

The Medical Society, founded in 1828 for promoting the study of medical and surgical sciences amongst students, and for social intercourse, has rooms set apart for reading and recreation, and there is a large gymnasium and squash racquets court with baths attached in the school buildings.

Scholarships, &c. — Entrance scholarship of 135 guineas, and two of 80 guineas each, the subjects being anatomy and physiology; the Graham scholarship in pathology, £200 per annum; the Atkinson-Morley surgical scholarship of £45 a year, tenable for three years; the Atchison scholarship, value £55, tenable for two years; the Magrath clinical scholarship of £100 for reports on cases at the bedside; Filliter exhibition for proficiency in pathological anatomy, value £30; Erichsen prize, operating case, value £10 10s., awarded for practical surgery; Fellowes gold and silver medals, the Liston gold medals, Alexander Bruce gold medal, Tuke medals for pathology, and other prizes, as well as certificates of honour, are awarded after competitive examinations in particular branches of study.

Composition Fees.—The Preliminary Scientific Course at University College, 26 guineas; Intermediate Course at University College, 58 guineas; final M.B. Course at University College Hospital Medical School, 80 guineas if paid in one sum or 82 guineas paid in two instalments of 50 and 32 guineas.

WESTMINSTER HOSPITAL.—This hospital is conveniently situated, facing the Abbey, and is readily accessible from all parts of the Metropolis. It contains 205 beds for general cases, and all the special departments. The school buildings are close by, which afford accommodation for 150 students. The class rooms, museum, laboratories, and lecture theatre are excellent samples of modern erections, affording ample scope for study.

Appointments.—Medical and surgical registrars, each £50 per annum; two house physicians, three house surgeons, one assistant house physician, one assistant house surgeon, and a resident obstetric assistant. These officers, except the two firt named, are all boarded free of expense. Qualified students are appointed to be clinical assistants in the various departments.

Scholarships, &c.—(*a*) Winter Session—The Guthrie scholarship, £60; subjects, Latin, mathematics, English, and either Greek, French or German. Two University scholarships, £50 each; subjects, anatomy and physiology. Natural science scholarship, £60; subjects, same as for Preliminary Science of University of London. Natural science scholarship, £30; subjects, chemistry and physics. (*b*) Summer Session.—Two University scholarships as for Winter Session. (*c*) Prizes to be competed for by unqualified men. Chadwick prize in Medicine and Surgery, 20 guineas, for students of any year not exceeding fifth. Bird medal and prize, in Obstetric Medicine, £14, for students who have completed fourth winter session. Sturges prize in Clinical Medicine, about £6, clinical surgery prize, £5. Abrahams prize in Clinical Pathology, 5 guineas. And class prizes in the various subjects.

Fees.—(*a*) The Annual Composition Fee is 25 guineas. This includes the subscriptions for membership of the Club's Union. (*b*) For shorter periods or for single courses the fees may be learned on application to the Dean. Fees for dental students, payable in one sum on entrance, 50 guineas, or in two instalments of £27 10s. each.

LONDON (ROYAL FREE HOSPITAL) SCHOOL OF MEDICINE FOR WOMEN.—The school is situated in Hunter Street, and the Royal Free Hospital is in Gray's Inn Road, close by. Students are prepared for the London University examinations and for the examinations of other Universities. A course of study is also arranged for the work required by the Royal Colleges of England, the Conjoint Colleges of Scotland and the Society of Apothecaries of London. The Royal Free Hospital contains 165 beds available for clinical study; and in addition there is a large outpatient and casualty department and a maternity department with 11 beds. In addition to the ordinary systematic lectures at the school, clinical lectures are given at the hospital in Medicine, Surgery, Obstetrics, Ophthalmology, Dermatology, Rhinology, and Laryngology. Students hold clerkships and dresserships in each department.

Appointments.—House physicians, house surgeons, and a senior and junior resident obstetric assistant are appointed yearly. There are also non-resident appointments, including the anæsthetists and assistant anæsthetist, assistant and clinical pathologists, medical and surgical registrars, curator of museum and clinical assistants.

Fees.—The fee for the University of London course and the course for the Royal Colleges of England is £160 in one sum, or £170 if paid in five instalments. The fee for the course for the Scotch Colleges or Society of Apothecaries, including Elementary Science, is £140 in one sum, or £150 in four annual instalments. Particulars as to scholarships, etc., can be obtained from the Secretary and Warden, Miss L. M. Brooks, 8 Hunter Street, W.C.

LONDON SCHOOL OF TROPICAL MEDICINE.—The next session of the School commences on the 1st of October. The past year has been one of the most successful on record, and over 60 students attended the session ending in July. The course is so arranged as to equip men for the Cambridge Diploma in Tropical Medicine and Hygiene, the London Diploma in Diseases and Hygiene of the Tropics, as well as for the London University M.D. Special facilities are now afforded for advanced students in entomology, helminthology, protozoology and tropical sanitation and hygiene. Resident accommodation for students is available in the Hostel. The Wandsworth Scholarship of £350 and the Hon. Edward John Stanley Memorial Scholarship of £50 are awarded annually. The School provides three sessions each year.

INTRA-ACADEMICAL INSTITUTIONS IN LONDON.

THE ROYAL DENTAL HOSPITAL.—The teaching and hospital practice at this institution (situated in Leicester Square) are recognised by the various examining bodies. The new hospital and school, which was opened seven years ago, is complete in every detail with modern appliances. The clinic of the hospital is unrivalled, no fewer than 108,000 operations being performed in one year. The following scholarships and prizes are open to all full-term students:—Entrance scholarships, of the value of £50 and £25, being awarded in October. Subjects: Chemistry and Physics, Saunders scholarship, of the value of £20, awarded to the student obtaining the highest aggregate number of marks in a special examination of the subjects of the final examination for the Dental half of the L.D.S. A scholarship of £25, the subjects being Dental Mechanics and Metallurgy. There is also an Entrance Scholarship of £25 open to those who have studied "Dental Mechanics" under the tuition of a private practitioner. Storer-Bennet Research Scholarship, of the value of £50, awarded once in three years; the Alfred Woodhouse Scholarship of £35, and the Robert Woodhouse Prize of the value of £10, for practical dental surgery. Class prizes are awarded by the various lecturers. Provision is made for teaching Dental Mechanics, as required by the Royal College of Surgeons, the pupils being under the guidance of the staff of dental surgeons assisted by specially appointed demonstrators. The school contains an excellent library and a well-arranged museum.

Fees.—For the two years' hospital practice and lectures as required by the Royal College of Surgeons of England, the fee is £53 3s. in one instalment, or £55 13s. in two yearly instalments. The fee for the complete curriculum—namely, two years' instruction in Dental Mechanics and two years' hospital practice and lectures, is £150 if paid in one sum, or 150 guineas if paid in three instalments of 50 guineas each. If paid in four instalments, viz., first year, 50 guineas, second year 50 guineas, third year 25 guineas, fourth year 25 guineas. For one year's instruction in Dental Mechanics the fee is 50 guineas. For one year's hospital practice, £21. For the courses in Chemistry and Physics for the Preliminary Science Examination, £10 10s. The necessary course of two years at a general hospital can be taken simultaneously with that at the Royal Dental Hospital. Further particulars can be obtained on application to the Dean.

National Dental Hospital (The Dental Department of University College Hospital).—Students are entered as students of University College Hospital, and, as such, attend the classes of chemistry, physics, anatomy and physiology at University College, a few minutes' walk from the Dental Department in Great Portland Street, where excellent teaching facilities and hospital practice are obtainable, special demonstrations being given by members of the staff. There are also a mechanical laboratory, bacteriological laboratory, X-Rays Department, museum, students' common room, a metallurgical laboratory extraction and stopping rooms, lecture hall, regulations room, etc., all lighted by electricity, and warmed and ventilated after the most approved requirements; in fact, this institution may be pronounced a model dental department of a general hospital and school. The winter session commences at the same time as at the medical school, on October 1st. The medical tutor holds special classes before each college examination. The prizes include two entrance exhibitions, value £40 and £20, and the Rymer prize of £5 5s., the examinations for which are held in May and October. The fee for four years' full curriculum, including lectures, is £175.

For qualified medical men the two years' training in dental mechanics, required by the R.C.S. Curriculum, can be taken in the Mechanical Laboratory, and there is a "Composition Fee" including all the dental subjects of the curriculum of £120.

Medical students are admitted to the practice of the following Metropolitan general hospitals to which no medical school is attached, but each contains over 100 beds. Detailed particulars will be supplied on application to the various secretaries.

Prince of Wales's General Hospital, Tottenham.—This hospital contains medical and surgical wards and a ward for children, having 125 beds, with a very large out-patient department. Its practice is exclusively limited to post-graduates. There are special departments for gynæcological cases, diseases of the eye, ear, throat and nose, medical electricity and radiography, and skin diseases. It is authorised by the University of London to give certificates of post-graduate study for the M.D. and M.S. degrees.

Great Northern Central Hospital, Holloway Road, N.—This institution has been greatly enlarged, contains 185 beds, cases in various special departments are treated, and the hospital is now recognised for study during the fifth year by the Conjoint Board. The Pathological Department has been extended and a Director of Clinical Pathology appointed. The practice of the hospital is open to practitioners and senior students, and clinical and pathological assistants are appointed in the wards and out-patient departments, as in the larger general hospitals.

Bethlem Royal Hospital.—In this Royal institution only cases of lunacy are received, and students intending to pursue this special branch have the best possible opportunities afforded here. The hospital contains 300 beds, and two resident house physicians who have recently obtained their diplomas to practise medicine and surgery are elected every six months and are provided with apartments, complete board, attendance, washing, and an honorarium of 25 guineas per quarter. The students of certain specified London medical schools receive clinical instruction in the wards of the hospital, and qualified practitioners may attend for a period of three months on payment of a fee. Post-graduate lectures are also given.

National Hospital for Epilepsy and other Diseases of the Nervous System, Queen Square, W.C., contains, with its country branch, 200 beds and cots. It is recognised by the Conjoint Board where part of the fifth year of study may be devoted to clinical work. Clinical clerks are appointed to the physicians for out-patients, and courses of lectures and clinical demonstrations are given each year.

West End Hospital for Diseases of the Nervous System, Paralysis, and Epilepsy, Welbeck Street, W.—Graduates in medicine and senior students may attend demonstrations in the Out-patient Department. No fees are charged. The Savill Prize and Medal is awarded to the student who makes the best *viva-voce* examination and presents the best thesis after attending at least 25 demonstrations.

London Temperance Hospital.—This Institution is situated in the Hampstead Road, and contains 100 beds, and is conducted, as its name implies, on non-alcoholic principles by an excellent staff. The medical and surgical practice is open to students and practitioners. Appointments (vacancies for which are advertised in the medical journals): Surgical and medical registrars, resident medical officer, and one assistant resident medical officer.

Metropolitan Hospital, Kingsland, N.E.—This was until recently known as the Metropolitan Free Hospital, is situated in the north-eastern district of the Metropolis, and contains 123 beds, besides 18 beds at a convalescent home. It is a general hospital, with a large medical and surgical staff, in which various special departments for the treatment of diseases of the eye, throat, ear, diseases of women, &c., will be found.

SPECIAL HOSPITALS.

Hospitals for Consumption.

Hospital for Consumption and Diseases of the Chest, Brompton.—The largest institution for the treatment of affections of the chest in the United Kingdom, there being 333 beds in the two buildings. There are six house physicians who reside in the hospital, each for a period of six months. Lectures and demonstrations are given by members of the medical staff on Wednesdays at four o'clock, save during the vacations. Terms, £2 2s. for three months; £5 5s. perpetual. A special course of instruction in the diagnosis and treatment of pulmonary tuberculosis will be held in November. This hospital is recognised by the Conjoint Board, the University of London, and the Apothecaries' Society.

City of London Hospital for Diseases of the Chest, Victoria Park.—This is a large and well-equipped hospital at the East End, containing 170 beds. Clinical lectures and demonstrations are given by the members of an exceptionally experienced staff. Fee for three months' attendance on hospital practice, 2 guineas; six months, 3 guineas.

Royal Hospital for Diseases of the Chest, City Road.—This hospital, which has lately undergone extensive re-organisation, provides an excellent field for research and study in diseases of the chest, more especially in tuberculosis in its various departments. The departments in which study can be pursued comprise the in-patient, out-patient, Röntgen-ray, cardiological, pathological and bacteriological, ear, nose and throat, and dental departments. Attached to the hospital is a medical school for instruction in diseases of the chest, more especially tuberculosis, at which courses of instruction are given from time to time. There is also a tuberculosis school for nurses, where regular theoretical and thoroughly practical courses of instruction are given, for which a certificate is granted. The fees for attending the clinical practice of the hospital are as follows:—One month, one guinea; three months, three guineas; six months, 5 guineas; perpetual ticket, six guineas. For further information apply to the Dean, Dr. Barty King.

Throat and Ear Hospitals.

Metropolitan Ear, Nose, and Throat Hospital.—This hospital was founded in 1838, and is situated in Fitzroy Square. The out-patient department is opened daily at 2.30 p.m. to practitioners and students desirous of acquiring clinical instruction and technical knowledge. Operations are performed on in-patients on Tuesdays, Wednesdays, Thursdays and Fridays at 10 a.m. Fee for one month's attendance at the hospital one guinea, and for three months two guineas. (See advt.)

Hospital for Diseases of the Throat, Golden Square, W.—This hospital contains 48 beds. Clinical instruction is given daily in the Out-patient Department on diseases of the nose, throat, and ear, and systematic courses of lectures are given during the winter session. There are nine clinics weekly, and an annual out-patient attendance of nearly 60,000 Major and minor operations daily (Mondays excepted in different theatres. Thirty-six junior clinical assistants are appointed from among the students to assist the surgeons. Students are admitted to the practice of the hospital at the following fees:—Three months £5 5s.; six months, £7 7s.; longer periods, £10 10s. Further details can be had by applying to the Hon. Med. Secretary.

Central London Throat and Ear Hospital.—This hospital contains accommodation for 30 in-patients. It has a very extensive out-patient department (over 50,000 attendances yearly), which is open daily to all medical practitioners and students, for the purpose of clinical demonstration and instruction. Courses of practical teaching are held twice weekly by members of the staff, which are open to qualified practitioners and advanced students. Each course is of about seven weeks' duration, and includes hospital attendance for that period. Operations are performed daily (Saturday excepted) at 2 p.m. Special attention is devoted to scientific work in the newly equipped laboratory. Full particulars will be supplied on application to the Dean.

Women and Children.

Queen's Hospital for Children, Hackney Road was established about 50 years ago as the North-Eastern Hospital for Children. It has 130 beds in London and 30 at its Seaside Branch, Bexhill. Courses of Post-Graduate Lectures and Demonstrations are given by the Medical and Surgical staff during the winter, which are free to Practitioners and Students of Medicine.

Hospital for Sick Children, Great Ormond Street, Bloomsbury, and Cromwell House, Highgate. This is the largest Children's Hospital in the United Kingdom, and contains 240 beds.

The practice of the Hospital is open to qualified medical men, and to students who have completed four years of medical study, the Hospital having been recognised by the Conjoint Board of England as a place where six months of the fifth year may be spent in clinical work. There are special ophthalmic, aural, dental, and electrical departments. There is also a Museum and Library in connection with the School. —Fee for three months' general hospital attendance, £5 5s.; perpetual, £10 10s.; £1 1s. for students satisfactorily undertaking clinical clerkships for not less than three months. Ophthalmological Clerkships: Clinical clerkships are appointed once a month; fees, £1 1s. for a month's attendance. Facilities are afforded for obtaining theoretical and practical instruction in Clinical Pathology and Bacteriology by daily attendance in the Pathological Laboratories, the fees for which are: For one month, £3 3s.; three months, £6 6s.

In addition to the ordinary practice of the hospital, Special Classes illustrated by cases, specimens, skiagrams, operations, etc., are arranged to extend over six weeks of each session. Further details and full syllabus may be obtained by application to the Dean or the Secretary of the hospital. Fee for each course of six lectures, £1 1s.

Special Courses of Instruction are given throughout the year as follows: Mondays and Thursdays, 4 to 5 p.m., "Pathological Investigation of Diseases of Childhood." Mondays and Thursdays, 5 to 6 p.m., "Minor Surgical Ailments of Childhood." Tuesdays and Fridays, 5.15 to 6.15 p.m., "General Surgical Diseases of Children." Fee for six attendances, £1 1s.

Queen Charlotte's Lying-in Hospital, Marylebone Road, N.W.—Qualified medical practitioners and medical students are admitted to the practice of this hospital. Certificates of attendance are recognised by all universities, colleges and licensing bodies. Fee for the course of four weeks, £8 8s. Students are accommodated at the new Residential College (5 Cosway Street) opposite the hospital.

Arrangements have also been made for the preliminary instruction in midwifery now required by the General Medical Council. This will include:—(1) Practical instruction in the methods of examination of pregnant women; (2) delivery of women in labour under the direct supervision of a medical officer of the hospital; (3) practical instruction in the treatment of the mother and child during the puerperium, including clinics held four times weekly by the visiting medical staff. Fee for this special course, £5 5s. per month. (See advt.)

East London Hospital for Children, Shadwell.—This institution was founded about sixty years ago in one of the poorest quarters of the East End of London and contains 124 beds, with special departments for electric treatment, ophthalmic and dental surgery, etc. Two Clinical Clerkships are available, and the Hospital is recognised by the Conjoint Board for England.

Royal Waterloo Hospital for Children and Women.—This important institution, situated in South London, has been rebuilt and appointed on completely modern lines, and now provides 106 beds, with an excellent Medical and Surgical staff.

The Samaritan Free Hospital for Women, Marylebone Road, N.W., has 67 beds, and offers excellent opportunities to qualified medical men for clinical study and training in the details of operative gynæcology. Fee: Three months, £3 3s. The success of the staff in this department has gained for them a European reputation.

The Hospital for Women, Soho Square.—The hospital contains 67 beds. In connection with this institution there is now an organised school of gynæcology open to qualified medical men and to students after their third year. Clinical assistants to the physicians and surgeons in the in-patient and out-patient departments are appointed every three months. Fee for the three months' course, and certificate, £8 8s.

Chelsea Hospital for Women, Fulham.—This institution contains 50 beds, and is served by a staff of considerable eminence. In connection with it there is a Convalescent Home at St. Leonards, in which 22 additional beds are at the disposal of the authorities.

Eye Hospitals.

Royal Eye Hospital, St. George's Circus, Southwark, S.E.—There are 40 beds and two cots at this Institution. Lectures, demonstrations, instruction in refraction work, and demonstrations on the specimens in the Museum are given throughout the year by the teaching staff. Patients are seen in the out-patient department and operations are performed in the theatres daily, morning and afternoon. There are annually upwards of 21,000 new out-patients attending the Hospital. Fees: for Three months' practice and tuition, £3 3s.; perpetual, £5 5s. Further particulars of the Dean. (See advt.)

Royal Westminster Ophthalmic Hospital, adjoins Charing Cross Hospital in King William Street. It has about 40 beds and a very large out-patient *clinique*. The lectures and demonstrations are arranged with special reference to the requirements of practitioners and senior students. Fee, six months, £3 3s.; perpetual, £5 5s.

Royal London Ophthalmic Hospital, formerly in Moorfields, and recently rebuilt in the City Road, is the largest hospital devoted to this speciality in Great Britain, and contains 138 beds. Students and practitioners are admitted to the practice daily at 9 o'clock. Operations, 10 o'clock and after. Fee for six months,

£3 3s.; perpetual, £5 5s. Further particulars of the Secretary.

Central London Ophthalmic Hospital.—This hospital is situate in Judd Street, St. Pancras, has 28 beds and a large out-patient clinique. The post of clinical assistant is open to both men and women, who must be duly qualified and registered practitioners. During the winter session, commencing in October, lectures and demonstrations are given in all the branches of ophthalmology, viz., anatomy of the eye, external diseases, medical ophthalmology, use of the ophthalmoscope, refraction, operative surgery, pathology, bacteriology, and X-ray. The classes will be given by various members of the staff, and are limited to a certain number of students. Early application is therefore desirable. Syllabus and further particulars of the Dean of the School. (See advert.)

Skin Hospitals.

St. John's Hospital for Diseases of the Skin.—Out-patient department, 49 Leicester Square; In-patient department, 262 Uxbridge Road, W. This hospital has a well-equipped in-patient department, with 40 beds. It has a School of Dermatology at 49 Leicester Square, which is conducted by the medical staff of the hospital. During the past year the free course of Chesterfield Lectures have been well attended. The Out-patient Department has recently been rebuilt at a cost of £10,000, and contains a spacious laboratory and special electrical department which can be seen in operation every afternoon except Saturday. Special Courses in Pathology and Bacteriology can be arranged for. Clinical demonstrations are given every day at 2 p.m., on Selected Cases.

The Western Skin Hospital.—This is one of the oldest institutions of the kind in the metropolis, and was started as long ago as 1851. It has recently been removed to larger premises in the Hampstead Road, and the practice of the hospital is open to students and practitioners, who have the opportunity of seeing daily a large number of out-patients.

The Hospital for Diseases of the Skin, Stamford Street, Blackfriars.—This was the first hospital to be established for the treatment of cutaneous disorders in London. It has an extensive out-patient department, which is open to qualified practitioners. This year an evening clinic has been opened for the convenience of patients. A fine corner site has lately been acquired in the Blackfriars Road, whither the hospital will shortly be moved, and in the new buildings it is hoped to add a few beds.

METROPOLITAN POST-GRADUATE INSTITUTIONS.

Medical Graduates' College and Polyclinic.—At the lectures and clinics, at which illustrative cases are specially selected, the hour selected is specially adapted to suit the busy practitioner, and one has the opportunity of meeting other practitioners who are interested in the same subject. The subscription is one guinea per annum. Special facilities are afforded to those desirous of attending hospital practice. A time-table of clinics at the general and special hospitals is kept, and the Secretary makes all necessary arrangements. For those who wish to acquire the necessary skill to enable them to use some of the special instruments of diagnosis or treatment, such as the cystoscope, sigmoidoscope, laryngoscope, X-rays, high-frequency currents, electricity, etc., special arrangements have been made so that each practitioner may receive practical personal instruction under the direction of an expert teacher. There are special practical classes in such subjects as bacteriology, pathology, microscopy, gynæcology, otology, etc. There is a well-equipped clinical laboratory attached to the college, under the superintendence of an expert pathologist. Special instruction is given in all branches of clinical pathology, bacteriology, vaccines, etc. There is a special department, which enables subscribers to have specimens examined, vaccines prepared, etc., at moderate fees. The Polyclinic is not confined for its teaching staff to any one medical school or hospital, but includes teachers from all the best general and special hospitals in London. Full information may be obtained from the Medical Superintendent, Medical Graduates' College, 22, Chenies Street, Gower Street, W.C.

West London Post-Graduate College.—The West London Hospital, Hammersmith, contains 160 beds; the post-graduate course was started in 1895. Instruction is given in the out-patient department daily at 2.15 p.m. by the assistant physicians and assistant surgeons. The physicians and surgeons attend daily at 2.30 p.m., when post-graduates can accompany them in their visits to the wards. Operations are performed daily at 2.30 p.m. Demonstrations are held every morning and there are lectures every evening at 5 p.m. (Saturdays excepted). Special classes are held in bacteriology, vaccine therapy, diseases of the eye, throat, X-rays, anæsthetics, intestinal surgery, tropical medicine, cystoscopy, venereal disease, operative surgery, etc.—*No information vouchsafed.*

Prince of Wales's General Hospital, Tottenham.—This hospital contains medical and surgical wards and a ward for children, having 125 beds, with a very large out-patient department. It practice is exclussively limited to post-graduates. There are special departments for gynæcological cases, diseases of the eye, ear, throat and nose, medical electricity and radiography, and skin diseases. It is authorised by the University of London to give certificates of post-graduate study for the M.D. and M.S. degrees.

North-East London Post-Graduate College.—This post-graduate school is established in connection with the Prince of Wales's General Hospital, Tottenham, N., which is recognised by the University of London as a place of post-graduate study for the M.D. and M.S. degrees, and by the Admiralty and the India Office for purposes of study leave. Facilities are here afforded to qualified medical practitioners for taking part in the work of an active general hospital, and for attending demonstrations in various branches of medicine, surgery, and gynæcology, with opportunities for clinical instruction in diseases of the eye, ear, throat, nose, skin, in fevers, psychological medicine, the administration of anæsthetics, radiography and dentistry. Cliniques, lectures and demonstrations are given by members of the teaching staff in the lecture room, in the wards, in the various out-patient departments, and in certain affiliated institutions. Operations are performed every afternoon of the week, except Saturday. Special classes, the attendance at which is limited, are arranged in gynæcology, the surgical diseases of children, including orthopædic surgery, diseases of the throat, nose and ear, diagnosis of diseases of the nervous system, ophthalmoscopy and refraction, clinical pathology, diseases of the skin, abdominal surgery, radiography, bacteriology (which is accepted by the University of Cambridge for the D.P.H. diploma) vaccine therapy, pathological chemistry and medical electricity. The fee for a three months' course of study, which may be begun at any time, in any single department, is one guinea. A fee of three guineas admits to the whole practice of the hospital for a similar term (one month, 2 guineas), and a perpetual ticket for the practice of the hospital may be obtained on payment of a fee of 10 guineas. The opening lecture of the Winter Session will be given towards the end of October. Additional information with a syllabus of lectures, demonstrations, and special classes, may be obtained from the Dean of the Post-Graduate College, Dr. A. J. Whiting, at the Hospital, or at 142, Harley Street, W.

The following are some of the principal provincial hospitals having the greatest number of beds, to which students are admitted, where clinical instruction can be obtained, but to which there is no medical school attached :—

Bath Royal United Hospital, Bath.—This hospital contains 150 beds and possesses an extensive library. Considerable alterations and re-arrangements have been carried out in the out-patient department during the past year, and also a complete installation of heating by hot water.

Royal Devon and Exeter Hospital, Exeter.—This hospital contains 200 beds (including special children's wards), and numbers on its staff several well-known names; has a good library. Atendance on the practice of this hospital qualifies for all the examining boards, and students can attend Midwifery on application to the House Surgeon. Arrangements may also be made by which practitioners may have the use of the museum and library and other facilities.

Leicester Infirmary is duly recognised by the various examining bodies, and contains 230 beds, and at the Children's Hospital in connection, 42. A new wing containing 100 beds has recently been added, together with a new Nurses' Home.

Liverpool.—The principal hospitals in this city, four in number, now form a combination for teaching purposes, in connection with the Liverpool University. These are referred to in another column, under "Universities," and are the Liverpool Northern Hospital, the Royal Southern Hospital, the Royal Infirmary, the Stanley Hospital, together with five special hospitals, the whole containing a total of 1,127 beds.

The Liverpool Skin Hospital and Extra-Mural School of Dermatology, in Pembroke Place, has eight beds and an Out-patient Department where over two thousand different patients are registered annually, and is open to Senior Students and Practitioners of Medicine. There is an excellently equipped "Light" Department where instruction is given in X-ray and Finsen Light Therapy, and attached to the Hospital is a Museum of Dermatology. Terms for private instruction, 10 guineas per month. Dr. Stopford Taylor will give a course of twelve demonstrations, commencing September 14th. Fee for the course, 1½ guineas. (See advt.)

Norfolk and Norwich Hospital.—This hospital is recognised by the Colleges, and contains 230 beds. Fees, £10 10s. for six months, £15 15s. for twelve months' medical and surgical practice. Pupils, resident and non-resident, are admitted.

North Staffordshire Infirmary, Hartshill, Stoke-on-Trent.—This institution is built on the pavilion plan, and has accommodation for 216 patients, including children's wards, women's wards, and a special department for the treatment of diseases of the eye, so that there are excellent facilities here for acquiring a practical knowledge of the profession.

Nottingham General Hospital.—As a large commercial and industrial centre, Nottingham boasts of a large general hospital and several special institutions. The General Hospital contains 254 beds, and is staffed by several well-known physicians and surgeons. The practice is open to qualified members of the profession, and house appointments obtained hereat yield valuable material for study, especially in the direction of accidental injuries.

The Royal Sussex County Hospital, Brighton.—This hospital possesses about 201 beds, as well as a large out-patient department, and a well-appointed clinical research and bacteriological department. Hospital practice may be gained here for a period not exceeding two years on payment in advance of a fee of 20 guineas. There is also an excellent library attached.

Wolverhampton and Staffordshire Hospital.—This is one of the largest hospitals in the Midlands, and contains 209 beds. Situated as it is in the centre of the great coal and iron industries, it affords ample material for clinical study, and as the Hospital is recognised by the Royal Colleges, and has an excellent staff, its position is excellent.

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Ireland.

THE IRISH MEDICAL SYSTEM.

The system of medical teaching in Ireland differs from that in England in important particulars. In London each clinical hospital has its attached medical school, fully equipped, which educates the students of that hospital and very seldom those of any other. In Dublin, on the contrary, the hospitals and schools are entirely separate (except that Sir Patrick Dun's Hospital is officially connected with Trinity College), and a student of any school is free to enter for the whole or any part of his course at any school or hospital he pleases.

COST OF MEDICAL EDUCATION IN IRELAND.

The cost of obtaining a medical qualification depends to some extent on the qualification sought. In this connection the following tables may be of use to the prospective student:—

COST OF MEDICAL EDUCATION.

School of Physic, Dub. Univ. ..	£122 17s.
Royal College of Surgeons School	£124 19s.
University Colleges	About £125.
Queen's University, Belfast ..	£105

COST OF DIPLOMAS OR DEGREES.

Dublin University	£27 (to this must be added £83 4s., the cost of obtaining an Arts degree),
National University	£25.
Queen's University, Belfast ..	£19 19s.
Conjoint Royal Colleges ..	£42.
Apothecaries' Hall	£22 1s.

Thus, the absolute payment will amount to somewhere between £125 and £233 1s. according to the course chosen. For the Conjoint Colleges the entire cost is £166 19s., taking the minimum mode of payment. So that, assuming that extras or voluntary costs are incurred the total will vary, say, from £170 to £200. "Grinding," although not officially recognised, occupies a position similar to that of the extra-mural instruction of other schools. Its cost must be reckoned among the expenses of the course, for, while not essential, it has become customary for almost all students to obtain aid in their studies in this way. As a rule, this private instruction costs about £5 5s. for each of the four examinations.

The above sum, or something like it, may be expended by the student or his parent in paying for lectures, &c., and examination fees as they fall due, and there is no difficulty in obtaining the needful information for his guidance if he likes to pay for his course in this fashion.

All the schools require fees for each course to be paid in advance.

Women are admitted to all the courses, degrees, and licences on the same terms as men.

DATE OF ENTRY.

The entry of names and commencement of study in Ireland is *supposed* to date from the 1st of October in each year, but entries are accepted up to the end of that month, or in some schools even later. It should be remembered that no credit is given for studies or attendance until the entry is regularly made. The student must attend three-fourths of the lectures delivered, and if he loses any time at the beginning he must make up for it afterwards by constant attendance.

The student begins work by attending a recognised medical school each morning at ten o'clock, and occupying his day, to five p.m., between lectures and dissections. His vacations are a fortnight at Christmas and a fortnight at Easter, and the academic year ends at the end of June.

PRELIMINARY EXAMINATIONS.

The first act of the student is to pass a preliminary examination, without which he cannot get credit for any medical studies pursued. The next is to commence medical study. This he does by entering for lectures at a medical school. From the school registrar he gets a form of certificate, and his third act is to take it or send it to the Branch Medical Council, 35 Dawson Street, Dublin, unless, as is usually the case, this duty is undertaken for him by the school registrar. He is thereupon placed upon the Register of Medical Students (without fee), and his period of study counts from that date. He must register at the earliest possible moment, or he may lose credit for his work.

The only preliminary examination held specially for medical students is that held conjointly by the Royal Colleges of Physicians and Surgeons, but other examinations—*e.g.*, the public entrance at Trinity College, the matriculation of the National and Queen's Universities, the Intermediate Examination passes in the required subjects, and certain other examinations recognised by the General Medical Council, are accepted as equivalent.

The subjects of examination as prescribed by the General Medical Council are as follows:—1. English language, including a specified author, dictation, grammar, and composition; also parsing and analysis from a book specified. 2. Latin, including grammar, translation from specified authors, and translation of easy passages not taken from such authors. 3. Elements of mathematics, comprising (*a*) arithmetic, including vulgar and decimal fractions; (*b*) algebra, including simple equations; (*c*) geometry, Euclid, Books I., II., and III., with easy deductions. 4. One of the following optional subjects:—(*a*) Greek, (*b*) French, (*c*) German.

THE IRISH LICENSING BODIES.

The Medical Licensing Bodies of Ireland are five in number, and, as a rule, students will gravitate into one or other of six classes:—*a*. Those who enter Trinity College, and take a full graduation in Arts in addition to their professional degrees. *b*. Those who take the conjoint licence of the Royal Colleges of Physicians and Surgeons. *c*. Those who take their qualifications at the National University of Ireland, where graduation in Arts is not necessary. *d*. Those who enter Queen's University, Belfast, and take their course and degrees there. *e*. Those who take the licence of the Apothecaries' Hall. *f*. Those who pursue their studies in Ireland, but who migrate to London, Edinburgh, or Glasgow for their licences.

We do not attempt to give details as to the requisite courses of instruction for degrees or diplomas, as our epitome must necessarily be insufficient for the information of the student, and we can occupy our available space with information more useful to him. The official information upon which students may depend can be obtained by sending a note to the Registrars of the Licensing Bodies or Schools.

THE UNIVERSITY OF DUBLIN.

The University of Dublin grants the degrees of M.B., B.Ch., and B.A.O. to students who have obtained their B.A. degree, and who have been for at least five academic years on the books of the Medical School, and the higher degrees of M.D., M.Ch., and M.A.O. to graduates of certain standing who hold the degrees of M.B., and B.Ch. It does not grant degrees to any but graduates in Arts, and consequently its degrees hold a high rank, and are sought for by those who look forward to occupying the best positions in the profession.

The expense of obtaining the degrees of M.B., B.Ch., and B.A.O. is approximately as follows:—Lectures, £67 4s. 0d.; Hospitals, £55 13s.; Degree Fees, £27.—Total, £149 17s. 0d.

The expense of the B.A. degree, amounting altogether to £83 4s., should be added, making the total cost £233 1s. 0d.

Diploma in Medicine, Surgery, and Midwifery.—Candidates for the diplomas in Medicine, Surgery, or Obstetric Science must be matriculated in Medicine, and must have completed two years in Arts and five years in medical studies. The medical course and examinations are the same as for the degrees. Fees for the diplomas in medicine, surgery, and midwifery, £21. A diplomate, on completing his course in Arts and proceeding to the degree of B.A., may become a Bachelor of Medicine on paying the degree fees.

In addition to its ordinary qualifications the University grants the following degrees and diplomas:—

Doctor of Medicine.—To obtain this the candidate must have passed the final examinations, and be of M.A. standing. He must then read a thesis before the Regius Professor of Medicine. Fee for this degree, £13.

Master of Surgery.—The candidate must be a Bachelor in Surgery of three years' standing, and must then pass an examination in clinical surgery, operative surgery, surgical pathology, surgery, and surgical anatomy (on the dead subject). Fee for this degree, £11.

Master in Obstetric Science.—The candidate must have passed the M.B. and B.Ch. examinations, and have completed, in addition to the courses for M.B., B.Ch., a course of obstetric medicine and surgery. He is then required to pass an examination in the following subjects:—Practice of midwifery, gynæcology, anatomy of female pelvis and elementary embryology, and clinical gynæcology. Fee for this degree, £5.

Diploma in Public Health.—The candidate must be a Registered Medical Practitioner; must have completed, subsequent to obtaining a registrable qualification, four months' practical instruction in a laboratory in practical work in chemistry and bacteriology applied to public health; he must have studied practically outdoor sanitary work for six months under an approved officer of health; and have attended, after qualification, for three months, the practice of a hospital for infectious diseases.

Degrees in Dental Science.—Candidates for the B.Dent.Sci. degree in dental science must have taken a degree in Arts, and must have had their names in the books of the Medical School for four years. Three examinations must be passed—namely, the Preliminary Scientific at the end of the first year, the Intermediate at the end of the third year, and the Final Dental at the end of the fourth year. The total fees are £280 2s.

Full particulars regarding the Medical and Dental Courses and a prospectus of the Courses for the Diploma in Public Health may be obtained by application to the Registrar of the School of Physic, Trinity College, Dublin.

QUEEN'S UNIVERSITY, BELFAST.

The Queen's University confers the degrees of M.B., B.Ch., and B.A.O., on students who have followed the prescribed course of studies for five academical years, and passed the prescribed examinations. At least three of the years are spent in attendance on courses at the University. The expense is about £105.

Degrees of M.D., M.Ch., and M.A.O.—These degrees are not conferred until the expiration of at least three academic years, or, in the case of graduates of the University in Arts or Science, of at least two academic years, after admission to the primary degrees in the Faculty of Medicine. Every candidate must show that in the interval he has pursued such courses of study, or been engaged in such practical work as may be prescribed. These degrees may be conferred by the Senate either (*a*) after an examination, which includes written, oral, clinical, and practical examinations; or (*b*) on the submission of a thesis or other evidence of original study or research, to be approved by the Faculty of Medicine, after an oral or other examination of the candidate on the subject thereof. On application for these degrees a fee of £2 2s., and on admission to them a fee of £8 8s., must be paid.

The subjects of the examination for the degree of M.D. are:—The Principles and Practice of Medicine, and one other special subject to be selected by the candidate from: (i.) Human Anatomy, including Embryology; (ii.) Physiology; (iii.) Pathology; (iv.) Pharmacology and Therapeutics; (v.) Sanitary Science and Public Health; (vi.) Forensic Medicine and Toxicology; (vii.) Mental Diseases.

The subjects of the examination for the degree of M.Ch. are:—(1) Surgery, Theoretical and Practical, including Ophthalmology and Otology. (2) Surgical Pathology. (3) Surgical Anatomy and Operative Surgery, with the use of surgical instruments and appliances.

The subjects of the examination for the degree of M.A.O. are:—(1) Midwifery. (2) Diseases of Women and Children. (3) Pathology in its special bearing on Midwifery, and Diseases of Women and Children.

Diploma in Public Health.—This diploma is given after examination to registered medical men, on similar conditions to those obtaining elsewhere.

NATIONAL UNIVERSITY OF IRELAND.

The National University of Ireland confers the degrees of M.B., B.Ch., and B.A.O., on students who have followed the prescribed course for five academic years, and passed the prescribed examinations. At least three years must be spent at one of the constituent colleges of the University, viz., the University Colleges at Dublin, Cork, and Galway. The University also confers the higher degrees of M.D., M.Ch., M.A.O., B.Sc. (Public Health), D.Sc. (Public Health), B.D.S., and M.D.S.

The expense of obtaining the degrees of M.B., B.Ch., and B.A.O., is approximately:—Lectures, £68 5s.; Hospitals, £56 14s.; University Fees, £19. Total, £143 19s.

The conditions for the higher degrees are:—

Doctor in Medicine.—Candidates may present themselves for the examination for this degree after an interval of three academical years from the time of obtaining the M.B., B.Ch., B.A.O. degrees; but in the case of candidates who have obtained a degree of the University in the Faculty of Arts, an interval of two academical years is sufficient.

Candidates must at the same time produce a certificate of having been, for at least two academical years, engaged in hospital or private medical, surgical, or obstetrical practice respectively, or in the military or naval medical service.

Candidates at this examination must answer in Medicine and Pathology.

The examination in each subject consists of:—

(*a*.) A Written Examination.
(*b*.) An Oral Examination.

In addition every candidate must diagnose at the bedside at least three medical cases, and prescribe treatment. He must also write detailed reports on at least two cases, to be selected by the examiners, and discuss the questions arising thereon. Fee, £10.

Master in Surgery.—The following are the subjects of examination:—

Surgery, theoretical and practical, including Ophthalmology and Otology; Surgical Pathology; Surgical Anatomy and Operative Surgery, with the use of Surgical Instruments and Appliances.

The other conditions are the same as for the M.D. degree. Fee, £10.

Master in Obstetrics.—Academic standing is as for the two previous degrees.

Each candidate must furnish satisfactory evidence that since graduating in medicine he has (1) had personal charge of at least *twenty* cases of labour; and (2) attended during a period of three months the practice of a clinical hospital for diseases of women, where at least six beds are in constant occupation, or in a special ward of a general hospital, where such cases only are treated, and containing at least six beds in constant occupation.

Candidates at this Examination must answer in the following subjects:—Midwifery, Diseases of Women and Children, Pathology, the Use of Instruments and Appliances. The Examination in each subject consists of—(*a*) an Oral Examination, with practical illustrations, including use of instruments and appliances; (*b*) a written Examination; (*c*) a clinical Examination, as far as practicable. Fee, £10.

Bachelor of Science, Public Health.—A candidate shall not be admitted to receive the Degree of Bachelor of Science, Public Health, unless he—(*a*) shall have received the Degrees of M.B., B.Ch., and B.A.O. at least one year previously; (*b*) shall have pursued an approved course of study in the Faculty of Medicine; and (*c*) shall have passed the prescribed examination. Fee, £7.

Courses.—In addition to D.P.H. Course:—(1) Special Pathology (three months). (2) Bacteriology, second course (three months). (3) Advanced Course in Hygiene (three months).

Doctor of Science, Public Health.—The regulations are not yet published. Fee, £10.

Diploma in Public Health.—This Diploma may be granted to matriculated students of the University who shall have completed courses of study, approved for the purpose, and shall have passed the prescribed examinations: provided that it shall not be granted except to a registered medical practitioner.

The conditions and examination are similar to those already quoted for the University of Dublin.

Degrees in Dentistry.—Candidates for the Degree of B.D.S. shall be required to pass, after matriculation, four University Examinations, namely:—A First University Examination in Medicine, as for medical students; a Second University Examination in Medicine, as for medical students; an Intermediate University Examination in Dental Surgery; a Final Examination for the Degree of B.D.S.

Students must follow a definite course of instruction, and must be, for at least two years, apprenticed to a registered dentist.

The regulations for the degree of M.D.S. are not yet published.

ROYAL COLLEGES OF PHYSICIANS AND SURGEONS.

Examinations are held conjointly by the two Colleges. The course, as in other bodies, extends over five years, with examinations at the end of the first, second, third and final years. These examinations are conducted by examiners chosen by each of the Colleges for the subjects appropriate to them. The curriculum has recently been revised, and made of a more practical nature. As in the English Colleges, the subjects of the First Professional Examination may be studied either at a medical school or at an institution other than a medical school which is recognised by the Colleges, after due inspection, for instruction in these subjects. We recommend students to apply for the official programme to the Secretary of the Committee of Management, Royal College of Surgeons, or to the Registrar of either College. In the case of the Preliminary Examination seven clear days' notice must be given to the Secretary; fourteen days' notice is required from candidates for the Professional Examinations.

The total of the examination fees, spread over the four examinations, is £42, while the school and hospital fees, if taken in Dublin, amount to £124 19s., making altogether £166 19s., exclusive of re-examination fees, which have to be paid in case the candidate fails to pass his examination.

The Colleges also confer a Diploma in Public Health, of which information will be found on page 277.

ROYAL COLLEGE OF PHYSICIANS OF IRELAND.

This College issues a Licence in Medicine and a Licence in Midwifery to registered medical practitioners.

Licence in Medicine.—The subjects of examination are:—Practice of Medicine, Clinical Medicine, Pathology, Medical Jurisprudence, Midwifery, Hygiene and Therapeutics.

Licence in Midwifery.—The subjects of examination are:—Gynæcology and Midwifery. A Registered Medical Practitioner of five years' standing is exempted from the examination by printed questions.

Fees.—Fee for the Licence to Practise Medicine, £15 15s. Fee for the Licence to Practise Midwifery, £5 5s.

Membership.—The Membership is open to University Graduates in Medicine and to Licentiates of the Royal Colleges of Physicians of the United Kingdom. The Examinations for Membership are held in January, April, July, and October, and such other times as the

President may appoint. Fee to Licentiates of the College, £21, to others £36 15s.

Fellowship.—Fellows are elected from among the members of at least one year's standing. Fee £60.

ROYAL COLLEGE OF SURGEONS IN IRELAND.

This College grants a Licence in Surgery to registered medical practitioners.

The subjects, methods, times, and places of examination are those of the surgical group of the Final Professional Examination of the Conjoint Board in Ireland of the Royal College of Physicians and the Royal College of Surgeons. (See their regulations.) Candidates must pass in all the subjects at one examination. Special examinations will not be granted under any circumstances.

A candidate whose name is entered either on the Medical Register for the United Kingdom, the Colonial Medical Register, or the Foreign Medical Register of the year in which he presents himself for examination, and who satisfies the Council that he has passed through a course of study and examinations equivalent to those required by the regulations of the Conjoint Board of the Royal College of Physicians of Ireland and the Royal College of Surgeons in Ireland, preceded by the passing of an examination in Arts recognised by the General Medical Council, may, at the discretion of the Council, be admitted to the examination.

Candidates are required to lodge their applications, declarations, and certificates with the Registrar, at least twenty-one days before the date of the examination.

The fee for examination is for each admission five guineas. Of these fees five guineas will be reckoned as part of the fee payable upon admission to the Licence in Surgery. The fee to be paid upon admission to the Licence in Surgery is twenty-five guineas.

Fees will not be returned under any circumstances.

All applications with reference to the examination for the Licence in Surgery should be addressed to the Registrar, Royal College of Surgeons in Ireland, Dublin.

Fellowship.—The examination for the Fellowship is divided into two parts,—viz.: The Primary and the Final. The subjects of the primary examination are—anatomy, including dissections, physiology, and histology. The examination is partly written, partly *viva voce*, and partly practical. Candidates must pass in all the subjects at one examination. The subjects of the final examination are—Surgery, including surgical anatomy, and pathology. The examination is partly written, and partly *viva voce*, and includes the examination of patients, and the performance of operations on the dead body. Candidates must pass in all the subjects at one examination. The examinations are held three times in each year, commencing:—The primary on the first Monday in March, the third Monday in July, and the third Monday in November. The final on the second Monday in March, the third Wednesday in July, and the fourth Monday in November. Special examinations will not be granted under any circumstances. Candidates are required to lodge their applications, certificates, and receipts for fees with the Registrar, at least seven days before the date of the examination.

Fees.—1. The fees for examinations are as follows:—Primary examination, each admission, 5 guineas; final examination, each admission, 5 guineas. 2. Of these examination fees ten guineas will be reckoned as part of the fee payable upon admission to the Fellowship. 3. The fee to be paid upon admission to the Fellowship is forty guineas, except when the candidate is a Licentiate of the College, in which case the fee is twenty-five guineas.

All applications with reference to the examinations for the Diploma of Fellow should be addressed to The Registrar, Royal College of Surgeons in Ireland, Dublin.

Licence in Dental Surgery.—Candidates for the licence in Dental Surgery are required to pass two professional examinations. They must have passed a recognised Preliminary Examination in general education, and been registered as medical or dental students by the General Medical Council. They must have been engaged during a period of two years in acquiring a practical familiarity with the details of mechanical dentistry under the instruction of a registered dentist, or under the direction of the superintendent of the mechanical department of a recognised dental hospital where the arrangements for teaching mechanical dentistry are satisfactory to the Council of the College. This instruction may be commenced or attended before the candidates register as medical or dental students. They must have been engaged during four years in the acquirement of professional knowledge subsequently to the date of registration as a medical or dental student. One year's *bona fide* apprenticeship with a registered dental practitioner, after being registered as a medical or dental student, may be counted as one of the four years of professional study. Candidates must produce evidence of having followed a prescribed course of study. There are special exemptions in the case of persons already holding a surgical or dental qualification. All applications with reference to the examination for the Diploma in Dental Surgery should be addressed to The Registrar, Royal College of Surgeons in Ireland, Dublin.

APOTHECARIES' HALL OF IRELAND.

The Licence of this Hall is granted to students who present certificates of having completed the course of study as laid down in the curriculum, and who pass the necessary examinations. The diploma of the Apothecaries' Hall of Ireland entitles the holder to be registered as a practitioner in medicine, surgery, and midwifery, and possess the privileges of an apothecary.

There are three professional examinations, the total fees for which amount to thirty guineas. Women are eligible for the diploma.

Registered medical practitioners receive the diploma of the Hall upon passing an examination in the subject or subjects not covered by their previous qualification, and on paying a fee of fifteen guineas.

The fees payable for each examination are as follows: Professional Primary, £5 5s.; Intermediate, £10 10s.; Final Examination, £15 15s.

Applications and schedules, together with bank receipt for the fee, must be lodged with the Registrar, Apothecaries' Hall, 40 Mary Street, Dublin, at least fourteen clear days before the day of examination.

Each candidate before receiving his diploma must produce evidence that he has attained the age of 21.

Each candidate must produce evidence of having before entering on medical studies passed a preliminary examination in general education.

The details of the course of education required and syllabus of the examinations will be supplied on application to the Registrar at 40, Mary Street, Dublin.

THE DIPLOMA IN PUBLIC HEALTH.

This diploma is granted by Dublin University, the National University, Queen's University, and the Conjoint Royal Colleges. Every candidate must be a registered medical practitioner. The examination is in:—(1) Chemistry (including chemical physics). (2) Engineering and architecture. (3) Sanitary law and vital statistics. (4) Hygiene. (5) Bacteriology. (6) Meteorology. The General Medical Council recommend that all candidates shall have studied in a special bacteriological laboratory, also for six months as pupil of a working medical officer of health, described, for Ireland, as "the medical officer of health of a county or of one or more sanitary districts having a population of not less than 30,000; or a medical officer of health who is a teacher in Public Health of a recognised medical school."

THE IRISH MEDICAL SCHOOLS.

The Irish Medical Schools are as follows:—

The School of Physic of Dublin University.—No student is permitted to matriculate unless he has passed the Necessary Examination of Trinity College, or some other examination recognised by the General Medical Council. Two *medical scholarships* are given annually at the School of Physic, value £20 per annum, tenable for two years, the examinations for which are held each year in June; one scholarship is given in anatomy and institutes of medicine; the other in zoology, chemistry, botany and experimental physics. A *travelling prize* of £100 is awarded by the Board to the successful candidate at a special examination in alternate years in medicine or in surgery, provided that the merit be deemed sufficient. The successful candidate is required to spend three months in the study of medicine or surgery abroad. The examination is held in June, and is open to students who have passed the Final Examination in Medicine or in Surgery, as the case may be, within two years of the examination.

The *Sir John Banks Medal and Prize*, founded by the late Sir J. Banks, M.D., formerly Regius Professor of Physic, are awarded to the best and second best answerers at the Medical Travelling Prize Examination.

The *Edward Hallaran Bennett Medal and Prize*, founded by pupils of the late Dr. E. H. Bennett, formerly Professor of Surgery, are awarded to the best and second best answerers at the Surgical Traveling Prize Examination.

Class prizes are given at the end of the session of between £5 and £10 in value. The John Mallet Purser Medal, founded by Prof. Purser's past pupils, is awarded annually to the student who, at the ordinary June Intermediate Medical Examination, Part I., in Anatomy and Institutes of Medicine, obtains highest marks in Physiology and Histology, provided that he passes the examination in full, and the *Cunningham Medal and Prize*, in memoriam of the late Prof. D. J. Cunningham to the student who, at the same examination, obtains highest marks in Anatomy, and passes the examination.

Fitz-Patrick Scholarship.—This scholarship consists of the interest on £1,000. It is awarded annually to the student who obtains the highest aggregate marks at the five sections of the Final Examinations, provided that he has completed his medical course in the prescribed period of five years.

There is a complete School of Dental Science in connection with the School of Physic, Trinity College. Lectures are given in anatomy, chemistry, surgery physics, physiology and histology, dental anatomy, dental mechanics, orthodontia and anæsthetics.

Post-Graduate Classes.—A short post-graduate course is now given annually in September in connection with Trinity College Medical School. It includes special work on Diseases of the Eye, Nose, and Throat, Gynæcology, Diseases of the Skin, X-ray work, Medicine, Surgery (clinical and operative), and Clinical Pathology, Applied Anatomy and Applied Physiology.

All classes are open to women and to external students as well as to students of the University.

THE ROYAL COLLEGE OF SURGEONS IN IRELAND, SCHOOLS OF SURGERY.—These schools are attached by Charter to the Royal College of Surgeons, and have existed as a department of the College for over a century. They are carried on within the College buildings, and are subject to the supervision and control of the Council. The buildings have been reconstructed, the capacity of the dissecting room nearly trebled, and special pathological, bacteriological, public health, chemical, and pharmaceutical laboratories fitted with approved appliances, in order that students may have the advantage of modern methods of instruction. There are special rooms set apart for women students.

All the lectures and courses of practical instruction may be attended by medical students who are otherwise unconnected with the College.

All the diplomas of the College are open to students of either sex. Separate rooms have been provided, and careful provision made for the instruction and comfort of women students.

Prizes.—The Barker Prize, £26 5s.; the Carmichael Scholarship, £15; the Mayne Scholarship, £8. The Gold and Silver Medals in Surgery and the Stoney Memorial Gold Medal in Anatomy.

Class Prizes of £2 and £1, accompanied by silver medals if sufficient merit is shown, will also be given in each subject. Prospectus and Student's Guide can be obtained on application to the Registrar, Royal College of Surgeons, Dublin.

UNIVERSITY COLLEGE, DUBLIN.—This College is a constituent college of the National University of Ireland, for whose examinations and degrees it trains students. The examinations are conducted by the professors in the College, in conjunction with extern examiners appointed by the University.

Medical students must be registered with the Branch Medical Council at the commencement of their period of study. Forms of application can be obtained and filled up in the College. Information in respect of the necessary conditions for registration may be obtained from the Registrar of the College at the Medical School. The student must bring with him the certificate of his Matriculation examination, or of the Senior Grade examination of the Intermediate Education Board in the necessary subjects, and his birth certificate. Non-matriculated students intending to study medicine must have passed a Preliminary Examination, accepted by the General Medical Council, in English, Latin, Mathematics, and a Modern Language or Greek. Intending medical students who, for any reason, cannot begin the study of Medicine in the Winter Session, may do so in the Summer Session, but will not be able to complete the lectures of the first medical year until the following Winter Session

The Scholarship Regulations provide for Five Scholarships of £30 each, tenable for one year in each of the 2nd, 3rd, 4th and 5th years of study. The Examinations for the Scholarships are held in October, the subjects being those studied in the previous year which Candidates must have attended in the College. Scholarships tenable for one year are offered at entrance at an Examination common to all Faculties.

There are Exhibitions of the value of £20 and £10 offered to students of the College at each of the Medical Examinations of the University; and a Gold Medal to the most distinguished answerer at the M.B., B.Ch., and B.A.O. Examination of the year.

Courses of lectures in Dental Surgery and Dental Mechanics are given to Dental students.

THE QUEEN'S UNIVERSITY OF BELFAST.—This University provides all the classes required for a complete medical curriculum. The University contains laboratories in connection with the departments of Biology, Chemistry, Physiology, Pathology, Anatomy, Physics, and Materia Medica. In connection, too, is a Students' Union, which gives students the advantage of dining-rooms, reading-rooms, a library, and various recreation rooms. Women are eligible as students. Clinical instruction is given at the Royal Victoria Hospital, which was rebuilt a few years ago, and has 300 beds, and at the Mater Infirmorum Hospital, which has 160 beds. Other hospitals open to the students of the University are: The Maternity Hospital, the Ulster Hospital for Women and Children, the Hospital for Sick Children, the Ophthalmic Hospital, the Benn Ulster Eye, Ear, and Throat Hospital, the Union Infirmary and Fever Hospital, the Fever Hospital, Purdysburn, and the District Lunatic Asylum.

Scholarships.—(1) Twelve Entrance Scholarships, value £40, open to students of Art, Science and Medicine; (2) two Dunville Studentships (one each alternate year), value £150 each; (3) one Andrews Studentship each alternate year, value £145; (4) numerous sessional prizes.

Sixteen scholarships, value £15-£40, are now open for competition at the medical examinations in March and June. Each year a Magrath Clinical Scholarship value about £108. There is also a Post-Graduate Research Fund open to all graduates of not more than three years' standing. Information regarding these scholarships, etc., may be obtained on application to the Secretary of the University.

Fees.—The cost of the curriculum intended for students proceeding to the degrees of the Queen's University of Belfast is, approximately, £105. This includes examination fees and a perpetual ticket for attendance at the Royal Victoria Hospital or the

Mater Infirmorum Hospital, but not fees for the special hospitals.

A pamphlet containing full information regarding the new regulations for courses, fees, etc., can be had free of cost on application to the Secretary, Queen's University, Belfast.

The University Colleges—Cork and Galway.—These important academic institutions educate students for all degrees and licenses, and are maintained, as hitherto, by Government grants. Various exhibitions and scholarships are available. Each college has the disposal of about £1,500 per annum in scholarships and prizes. The colleges are equipped with students' reading rooms and lending libraries and refreshment rooms, and with all adjuncts to collegiate life, such as literary societies and athletic organisations. The expense of living in the collegiate towns is quite moderate. The scholarship examinations are held in October.

These Colleges are now constituent colleges of the National University of Ireland, and conduct examinations admitting to its degrees.

University College, Cork.—The arrangements in the Faculty of Medicine are made chiefly with reference to the requirements of the National University of Ireland, but students proceeding for the examinations of the Conjoint Boards of England, Scotland, or Ireland, can arrange the course of lectures which they attend, and the order in which they attend them, to meet the requirements of those bodies. Certificates of attendance in the college are also accepted by the University of London. The total fees for the college lectures and hospital attendances required by the National University of Ireland are about £104.

Clinical instruction is given at the North and South Infirmaries and at the Cork Union Hospital. Students can also attend the Mercy Hospital, the County and City of Cork Lying-in Hospital, the Maternity Hospital, the Hospital for Diseases of Women and Children, the Fever Hospital, the Ophthalmic and Aural Hospital, and the Eglinton Lunatic Asylum. The winter session commences on October 1st, and ends at the end of April. The courses of the summer session are delivered in the months of April, May, and June.

Between forty and fifty scholarships open to Medical Students are awarded annually (values £20-£50), as well as the Blayney Scholarship. This Scholarship, worth about £32, will be awarded to the candidate obtaining the highest marks in Honours at the M.B., B.Ch., B.A.O. Examination, held in Autumn at the College.

Further information can be obtained in the College Regulations, or on application to the Registrar, University College, Cork.

University College, Galway.—Clinical teaching is carried on in the Galway Hospital, established as a Public General Hospital (in the place of the County Galway Infirmary) by Act of Parliament 1892. The Galway Fever Hospital and Galway Union Hospital are also open to students. The conditions of residence required by the National University for graduation may be observed in Galway. The lectures qualify for the other licensing bodies.

Prizes.—There are eight Junior Scholarships in Medicine of the annual value of £25 each. Two are tenable by matriculated students of the first, second, third, and fourth years respectively. There are, besides, private Foundation Scholarships open to medical students and tenable with medical scholarships. Sessional prizes are offered in each subject.

Like the sister college of Cork, this college is now a constituent college of the National University of Ireland.

ROYAL COLLEGE OF SCIENCE FOR IRELAND.

This College, situate in St. Stephen's Green, Dublin, supplies a complete course of instruction in science applicable to the industrial arts, especially those which may be cast broadly under the heads of Agriculture, Chemical Manufactures, Engineering, Physics, and Natural Science. A Diploma of Associate of the College is granted at the end of the three years' course. Non-associate students may join for any course required. There are several entrance scholarships, (*a*) in Agriculture, and (*b*) in Science and Technology, tenable for three years, of the value of £50 each yearly, with free tuition. There are four Royal scholarships of the value of £50 each yearly, with free education, tenable for two years. Two are competed for by the first year associate students at the end of each session. All the laboratories and drawing schools are open daily for practical instruction. The Science Scholarship Examinations are held during the first week in July, the Examinations for Agricultural Scholarships in the first week in September, and the Entrance Examination for intending Associates in the third week of September. For further particulars and copy of college programme apply to the Registrar.

THE DUBLIN HOSPITALS.

The clinical hospitals in Dublin are ten in number, exclusive of three lying-in hospitals. There are also two children's hospitals, an orthopædic hospital, a fever hospital, an ophthalmic hospital, a dental hospital, and other special institutions. Some of the clinical hospitals, though they have no actual or official connection with any school, are in close affinity with certain teaching bodies; while others, again, are without any special connection with any school. While, however, such association of school and hospital may exist, it should be remembered that the Dublin schools and hospitals are open to all comers, and the student is free to attend any hospital or any school he wishes, and to change his hospital from year to year as he may see fit.

The Irish licensing bodies require attendance on hospitals for twenty-seven months—*i.e.*, three winter sessions of six months and three summers of three months, within the five years of study. The fee at all general hospitals is £8 8s. in winter, and for the summer £5 5s., or £12 12s. for the entire session of nine months if taken together. All the Dublin hospitals receive students as residents.

GENERAL HOSPITALS.

Richmond, Whitworth, and Hardwicke Hospitals.—These hospitals contain over 300 beds. They are visited each morning at nine o'clock by the physicians and surgeons, and, in addition to the usual bedside instruction, clinical lectures are delivered on the most important cases. Instruction is also given on various special branches of medicine and surgery. The Truss Establishment, for the distribution of trusses to the ruptured poor of Ireland, is connected with these hospitals. There are ophthalmic, aural, throat, and gynæcological dispensaries, and instruction in these important subjects is given. A modern pathological laboratory, and a new mortuary have been opened recently. Twelve resident clinical clerks are appointed each quarter, and provided with furnished apartments, fuel, &c. The appointments are open not only to advanced students, but also to those who are qualified in medicine and surgery. A house surgeon for the Richmond Hospital and a house physician for the Whitworth and Hardwicke Hospitals are elected every six months, and receive a salary. The Richmond Lunatic Asylum, containing 1,200 beds, adjoins the hospital.

Meath Hospital and Co. Dublin Infirmary.—This hospital was founded in 1753, and now contains 160 beds available for clinical teaching. A new building for the isolated treatment of fevers, containing 40 beds, has recently been added. The certificates are recognised by all the universities and licensing bodies of the United Kingdom. Medical and surgical resident pupils and clinical clerks and dressers are appointed every three months, and two house surgeons are elected annually. A prospectus giving the complete arrangements for medical and surgical classes for the coming session may be obtained from the Secretary of the Medical Board, Mr. Henry Stokes, F.R.C.S.I., 32, Upper Pembroke Street.

The Adelaide Medical and Surgical Hospitals occupy a central position within a few minutes' walk of the College of Surgeons and Trinity College. From October 1st, the physicians and surgeons visit the wards and give instruction at the bedside at the advertised hours. There is a large detached fever hospital, and there are wards for infants and children. Operations are performed, at 10 a.m. on Tuesday, Thursday, and Friday. Special hours are devoted to clinical instruction in the diseases peculiar to women; also special instruction is given on practical pathology and X-ray photography. Two House Surgeons are elected annually and four resident pupils half-yearly. Prize examinations for the Hudson Scholarship of £30 and a gold medal, and Hudson prize of £10 and a silver medal, and for surgical, medical and dermatological prizes, are held at the termination of the session. The large dispensaries afford facilities for the study of ear, throat, and cutaneous diseases, as well as of minor surgery and dentistry. Further particulars from Dr. H. T. Bewley, 89 Merrion Square.

The Royal City of Dublin Hospital.—This hospital has recently been enlarged and improved. A special course of instruction is given in ophthalmic and aural diseases. There are special wards for the treatment of diseases of the eye, of children, and of women, and practical instruction is also given on diseases peculiar to women; there is also a separate building for infectious diseases. Clinical clerks to the physicians and dressers to the surgeons are appointed from the most deserving of the class. A new operation theatre, sterilising room, and anæsthetic room have been constructed in accordance with modern surgical requirements. A department for Röntgen-ray and light treatment of lupus has been added. A resident medical officer is elected annually, and resident medical and surgical pupils are appointed from among the past and present students of the hospital. Operations are performed on Tuesdays, Thursdays, and Saturdays, at 10 a.m Special classes for first year students. Full particulars can be had on application to Hon. Sec. Med. Board.

Sir Patrick Dun's Hospital is situated on the south-eastern side of the city, and about a quarter of a mile from the University School of Physic. It is officered almost exclusively by the professors in that school. Formerly all University students were compelled to attend this hospital, which was purely a medical institution, but many years ago the obligation was removed, and the hospital was opened for surgical cases. It is now open to all students. There is a special wing devoted to fever cases, and regular clinical instruction is given by the members of the medical staff throughout the winter and summer sessions. Special classes for students commencing their hospital studies will be held in the wards during the months of October, November, and December. They will embrace the elements of medicine and surgery, including note-taking. Opportunities are also afforded to students for examining cases of throat, ear, and eye diseases, as well as for performing minor surgical operations and bandaging. In the X-ray Department opportunities are given the members of the hospital class of seeing the various applications of the X-rays to the diagnosis and treatment of injury and disease. Arrangements have been made for practical instruction in anæsthetics. A department for dentistry has lately been added.

*__Mater Misericordiæ Hospital__, Dublin.—This hospital, at present containing 345 beds, is open at all hours for the reception of accidents and urgent cases. Clinical instruction is given by the physicians and surgeons at 9 a.m. daily. A course of clinical instruction on fever is given during the winter and summer sessions. A certificate of attendance upon this course, to meet the requirements of the licensing bodies, may be obtained. Ophthalmic surgery is taught in the special wards and in the dispensary. Surgical operations are performed on Mondays, Tuesdays, Fridays and Saturdays at 11 o'clock. Connected with the hospital are extensive dispensaries, which afford valuable opportunities for the study of general medical and surgical diseases and accidents. Instruction is given in pathology and bacteriology. Three house physicians, six house surgeons, and 16 resident pupils are elected annually. Dressers and clinical clerks are also appointed, and certificates are given to those who perform their duties to the satisfaction of the staff. Leonard Prizes are offered for competition annually. For further particulars see prospectus. Certificates of attendance upon this hospital are recognised by all the universities and licensing bodies in the United Kingdom. A training school and a home for trained nurses have been opened in connection with the Hospital.

Terms of attendance.—Nine months, £12 12s.; six winter months, £8 8s.; three summer months, £5 5s. Entries can be made with any of the physicians or surgeons, or with the Registrar, Dr. Martin Dempsey, 35 Merrion Square. A prospectus containing in detail the arrangements for clinical instruction, prizes, etc., may be obtained from the Secretary, Medical Board.

Mercer's Hospital.—This hospital, founded in 1734, is situated in the centre of Dublin, in the immediate vicinity of the Schools of Surgery of the Royal College of Surgeons, the National University School of Medicine, and Trinity College. It contains 120 beds for medical and surgical cases, and arrangements have been made with the medical officers of Cork Street Fever Hospital whereby all students of this hospital are entitled to attend the clinical instruction of that institution. There is a large out-patient department, and a special department for diseases peculiar to women. There are also special wards for the treatment and study of children's diseases. During the past few years the hospital has undergone extensive alterations in order to bring it up to modern requirements. A house surgeon is appointed annually. Five resident pupils are appointed, each for six months, and clinical clerks and dressers are appointed monthly from among the most deserving members of the class. The certificates of this hospital are recognised by all the licensing bodies. For further particulars apply to Mr. Seton Pringle, F.R.C.S., 7, Fitzwilliam Place, Dublin.

St. Vincent's Hospital was established in 1834. It has 160 beds, and in connection with it there is a largely attended dispensary, and a nurses' institute. In addition to the ordinary clinical instruction, systematic courses of lectures are given in each department of medicine and surgery, and are illustrated by cases in the hospital. The resident officers consist of two house surgeons, two house physicians and six resident pupils. Three clinical lectures are delivered daily in the wards, illustrated by selected cases, and beginning at 9 a.m. Two gold medals and other valuable prizes and certificates of merit are awarded at the end of each session. A prospectus can be had from Mr. Kennedy, 68 Merrion Square.

*__Dr. Steevens' Hospital__, situated at Kingsbridge, is one of the oldest and largest clinical hospitals in Dublin, and contains over 200 beds. A new dispensary and out-patient department has been completed and opened to patients. There is accommodation for twelve resident pupils—four medical, six surgical, and two in the special departments, each of whom is supplied with a separate room. All information with regard to these appointments can be had from the Resident Medical Officer at the hospital. Licensing bodies recognise six months' residence as equivalent to a year's ordinary attendance at hospital. The manufactories and railway works in the neighbourhood supply this hospital with large numbers of accidents and other cases, while a special ward for venereal disease affords exceptional opportunities for the study of this important subject.

Jervis Street Hospital is the oldest established in Dublin. The present building was completed in 1896, since which time it has been open for the reception of patients. In addition to large medical and surgical dispensaries, the new out-patient department which is now completed, includes special, departments for the treatment of diseases of the skin, eye, ear, and throat, and diseases peculiar to women. Six resident surgeons are appointed annually. Clinical clerks and surgical dressers are selected from among the most attentive of the advanced students without the payment of any additional fee. Twelve resident students are appointed annually. Special certificates are given to resident pupils and dressers who have performed their respective duties to the satisfaction of the physicians and surgeons.

Students of Jervis Street Hospital are entitled to attend free of charge special courses in fevers at Cork Street Fever Hospital. Prospectus and all particulars may be obtained from the Hon. Secretary of the Medical Board, Dr. F. X. Callaghan, 25 Westland Row, Dublin.

SPECIAL HOSPITALS.

The chief of the special hospitals of Dublin are the Rotunda, the Coombe, and the National Lying-in-Hospitals, Cork Street Fever Hospital, the Royal Victoria Eye and Ear Hospital (amalgamation of St. Mark's Ophthalmic Hospital and the National Eye and Ear Hospital), the Dental Hospital, the Orthopædic Hospital, and the Children's Hospitals in Harcourt Street and in Temple Street.

The Rotunda Hospital.—This institution is the largest and the oldest gynæcological and maternity hospital in the British Empire. The work performed by it is about three times greater than that of any other hospital of its kind in Ireland. The number of patients admitted to the hospital, and of those attended in the extern maternity has increased enormously within recent years. The routine daily work comprises the attendance on lectures on midwifery and gynæcology; practice in abdominal palpation; personal conduction of parturition both in the extern and the intern maternities; cystoscopic examinations; and attendance at the operative work of the hospital, in which the students assist. The hospital affords exceptional advantages to qualified men and women, for they (if considered competent) are permitted a certain amount of practical operative work—viz., use of forceps, curettings, perinœorrhaphy, etc. A special afternoon class in gynæcology is held by the Senior Assistant, and one in special pathology by the Pathologist. Fee for each, £2 2s. per month. The pathological laboratory has become an important feature of the hospital. Students can enter at any time for periods of one month or longer. Certificates of attendance are accepted by all the licensing bodies. The L.M. certificate is obtained by attendance at the hospital for six months, with the subsequent passing of an examination. A special certificate in gynæcology is presented to students whose work meets with the Master's approval. Paid clinical assistants are selected (from amongst those who have obtained the hospital L.M. certificate), for periods of six months. Women students can also reside in the hospital under conditions similar to men. The grounds of the hospital contain grass courts for lawn tennis and croquet, and a skating rink. The entire students' quarters have been rebuilt and refurnished, with electric light, new bath-rooms, reading-room, new billiard table, etc.

Fees for Pupils.—Intern:—One month, £6 6s. two months, £9 9s.; three months, £12 12s.; six months, £21; single months other than the first, £4 4s.; board and lodging in the house per week, £1 5s. Night students (not resident in house), £6 6s. for first three months; £4 4s. for the second three months. For further particulars apply to the Master, Dr. Henry Jellett, Rotunda Hospital, Dublin.

Coombe Lying-in Hospital.—This hospital, which devotes itself to the care of lying-in women, and to the treatment of diseases peculiar to women, was founded in 1826. The original hospital was removed, and the present maternity hospital erected in 1875. An up-to-date labour theatre and waiting ward were added in 1904. The new Gynæcological Hospital was finished in 1903. It contains two modern operating theatres. The former Gynæcological Hospital has been converted into sleeping rooms for resident pupils. The Pembroke Dispensary was opened in 1911. The hospital is situated centrally in a most densely populated district. In addition to a very large gynæcological practice, over 2,000 women are delivered annually. The Master visits the maternity wards daily with the students at 9.30 a.m. This is followed by a lecture on midwifery. At 11 a.m. the gynæcological wards are visited; following this a lecture on gynæcology, physical examinations, and operations take place in the theatres. At 4 p.m. on Mondays, Wednesdays, and Fridays, the Master conducts the gynæcological out-patient dispensary. This dispensary affords students exceptional advantages of acquiring a thorough knowledge of gynæcological diagnosis. At 5 p.m. on Tuesdays and Thursdays, the Master conducts a special class in practical obstetrics, including palpation, auscultation, pelvimetry, and operations on the phantom. Lady medical students can reside in the hospital. Extern assistants are appointed from among the students as vacancies occur. These most responsible appointments afford the students every opportunity of making themselves competent in practical midwifery. Candidates for the diploma of the Coombe Hospital must have their names on the books of the hospital for six months, during which time they must attend as frequently as possible, and be present at 30 deliveries. They then present themselves for examination, and if found qualified receive the diploma. The catering for the residents is in the hands of a competent housekeeper. Board and lodgings, £1 1s. per week. The students' quarters are comfortably furnished.

Fees.—Extern pupils (for full course of six months), £8 8s. This includes one month's residence in hospital. Intern pupils—one month, £4 4s.; each consecutive month, £3 3s.; six months and L.M. diploma, £18 18s. Board and lodging in the hospital, 18s. per week. Lady students, intern—one month, £5 5s.; each consecutive month, £4 4s.; six months and L.M. diploma, £18 18s. Registration fee, 10s. 6d. There is no extra charge for attendance at any of the dispensaries. Certificates of attendance from this hospital are accepted by all the licensing bodies.

* National Maternity Hospital.—This institution, under the joint mastership of Sir A. Horne and Dr. R. White, is situated in Holles Street.

*Cork Street Fever Hospital contains 266 beds. It is supported by subscriptions, an annual Government grant, and capitation grants for patients. Regular clinical instruction is given during the winter and summer sessions to those who desire a special course in fevers. There are also courses for the Diploma in Public Health. All particulars may be obtained on application to the Medical Superintendent.

The National Children's Hospital for the treatment of all non-infectious diseases peculiar to children, with which the Pitt Street Children's Hospital, founded in 1821, was amalgamated, contains 45 beds for the reception of cases of deformity and all other forms of surgical disease. There is a general dispensary for extern patients held daily from 10 to 11. Operations are performed on Saturday at 12 o'clock. Practitioners and students can attend on application to Sir Lambert H. Ormsby, F.R.C.S.I.

*The Children's Hospital, Temple Street, Dublin (under the care of the Sisters of Charity).—This institution is the largest children's hospital in Ireland. There are 100 beds available for patients; about 1,000 cases are admitted to the wards annually; and about 7,000 or 8,000 seen in the dispensary. A new operating theatre has recently been opened. It is fitted and furnished in the best possible fashion for present-day surgery. Special attention is given to orthopædic surgery.

The hospital is recognised for clinical instruction in the diseases of children by those licensing bodies which require a certificate of instruction in this important branch of medical education. A nursing home is in connection with the institution, and trained nurses are always available for private cases. Senior students or others requiring a post-graduate course at the hospital should apply for full particulars to Dr. M. C. Staunton, hon. sec., or to any member of the staff.

The Incorporated Orthopædic Hospital, Ireland.—This hospital was founded in 1876, and contains 80 beds. It is available for every class of deformity Particulars may be obtained from the Secretary, at the Hospital.

The Royal Victoria Eye and Ear Hospital, Adelaide Road.—This hospital, which was opened in March, 1904, is an amalgamation of St. Mark's Ophthalmic Hospital and the National Eye and Ear Infirmary. The hospital contains 100 beds. Clinical instruction in diseases of the eye and ear, including the use of the ophthalmoscope and operations, is given daily from 10 till 1. Special classes for practical instruction in the use of ophthalmoscope, &c., and for the demonstration of cases, are formed from time to time.

The Incorporated Dental Hospital, Lincoln Place.—This hospital is the only special dental hospital in Ireland. It is officered by a strong staff of the leading dental surgeons of Dublin, and has a large *clientèle* and extensive practice among the Dublin poor. The fees are £12 12s. for each year's Dental Hospital practice, and proportionately smaller fees for shorter periods for surgeons and medical students. The term of pupilage in mechanical dentistry required by the various licensing bodies may be taken in the recently enlarged Hospital Laboratory. Particulars may be obtained from the Dean.

The City Hospital for Diseases of the Skin and Cancer, Holles Street.—Senior students are admitted free to the practice of this hospital, which has a large out-patient attendance, with 15 beds for intern cases. Classes of instruction will be given at regular intervals during the winter and summer sessions in the use of the Finsen light, X-rays, high frequency currents and radium, with demonstrations on (1) the production and use of the Röntgen rays, (2) electric currents, direct and alternating, with description of resistances, rectifiers and transformers; (3) accumulators, their construction, use, and methods in charging; (4) vacuum tube, choice of tube for particular kinds of work; fluorescent screen, and how to localise foreign bodies.

BELFAST HOSPITALS.

Royal Victoria Hospital. — Established 1791; incorporated by Royal Charter, 1875 and 1898. New hospital opened, September 17th, 1903. 300 beds; Convalescent hospital, 22 beds; Children's Hospital, 33 beds; Consumptive Hospital, 10 beds.

Clinical instruction in medicine and surgery is given each morning by the staff.

*Mater Infirmorum Hospital.—Established 1883. 160 beds. The New Mater Hospital, which was erected at a cost of over £50,000, was formally opened on April 23rd, 1900. During the year the intern patients numbered 1,525; accidents, 3,762, and cases treated in the Dispensary, 22,597; 389 surgical operations were performed. The total number of patients who received treatment was 27,884, being an increase of 1,517 as compared with the year 1904. A notable feature is in the number of accident cases, as the hospital is conveniently situated in proximity to a large working-class population, and within easy reach of most of the public works.

The Belfast Maternity Hospital (Incorporated). —Established 1794. 30 beds.—The practice of the Maternity Hospital, the certificate of which is recognised by all the universities and colleges, &c., is open to students. The fee for the session is £2 2s. Resident nurses are also received for training for a period of six months, and a diploma given which is recognised by public bodies. The hospital course is also recognised by the Central Midwives Board. Conditions for such on application to the Matron. During the year 1911, 567 patients were treated in the hospital, and 556 patients at their own homes. Besides this, 300 patients were dealt with in the extern gynæcological department. Clinical lectures and bedside demonstrations are given by members of the staff during both the winter and summer sessions. Students wishing to attend should apply to Dr. H. D. Osborne, 32 Lonsdale Terrace, Belfast, Hon. Secretary to Medical Staff.

Note.—Hospital was rebuilt in 1904 and removed to new premises in Townsend Street. A Resident Surgeon is elected periodically.

* Ulster Hospital for Children and Women, Mountpottinger, Belfast, is the only hospital in the large part of the city situated on the County Down side of the river. It is placed in a working-class district, and has a great field for its charitable operations. There are in the hospital about thirty beds for children and ten for women. There is an extern department for children open every week-day, except Saturday from 9 till 10, and for women at 10.30, and a special department for diseases of the eye, ear, and throat on Tuesdays and Fridays from 9 till 10. During the summer and winter sessions, clinical instruction is given to students daily, operations being chiefly performed on Wednesday and Thursday. There is a resident midwife for extern work, and every facility is afforded students for attending their cases in the district.

Hospital for Sick Children (Incorporated), Queen Street.—This institution, erected by voluntary donations, and supported by voluntary contributions, was opened for the reception of patients on April 24th, 1879. It consists of a medical ward with twenty-eight beds, and one of a similar size for surgical cases. It is strictly non-sectarian in its principles, and is open to all denominations. Children from birth to the age of 12 years, and not suffering from contagious disease, are admissible as in-patients. A large extern clinic is conducted in the out-patient department between the hours of 9 and 10 a.m., where children from birth to 14 years are attended to. An operating theatre has been found necessary in the extern department, and has been erected. During the winter session systematic courses of lectures and demonstrations in the medical and surgical diseases of infancy and childhood are delivered in the wards on Wednesday and Saturday of each week at 9 a.m. At the close of the session an examination is held, and a gold medal awarded if sufficient merit has been shown. A Convalescent Home is maintained at Carrickfergus, Co. Antrim, in connection with the Hospital.

Ophthalmic Institution and Eye and Ear Hospital, Great Victoria Street, Belfast.—Established 1844. New hospital erected, 1867. Operation theatre added, 1902. New extern department, 1909. This hospital is situated on the main road between Queen's College and the Royal Victoria Hospital. It contains about 30 beds for intern patients, and a large extern department. The latter is open on Monday, Wednesday and Friday at 10 o'clock for eye cases, and on Monday and Thursday at 10 o'clock for ear cases. Special courses of instruction are given during the winter and summer sessions, but students can enter at any time, and can always obtain plenty of practice in ophthalmoscopic work. Full particulars may be had from Dr. J. Walton Browne, 10, College Square, N., Belfast.

Ulster Eye, Ear, and Throat Hospital.—Established 1871. New hospital opened 1874. 30 beds.

CORK HOSPITALS.

*North Charitable Infirmary.—Established 1774. 110 beds. Special wards for treatment of diseases of women and children. The extern department is largely made use of, and the number of accidents treated is very large. Clinical instruction is given daily from 9.30 a.m. to 12 noon. A new and thoroughly up-to-date operating theatre has recently been added at considerable expense.

Cork South Infirmary and County Hospital.—Founded 1773. The hospital contains 100 beds, available for clinical instruction, 40 medical and 60 surgical. There are also special wards devoted to the treatment of diseases peculiar to women and children, and a large medical and surgical extern department.

Clinical instruction is given daily during the session from 9.30 to 11.30, in both the medical and surgical wards, and clinical lectures are regularly delivered.

Students are regularly instructed in the methods of using the rays by practical demonstration on the cases requiring their use.

For further particulars apply to Norman I. Townsend, hon. sec.

Victoria Hospital for Women and Children.—Established 1874. 70 beds. A large amount of work is done in this hospital to relieve the poor of Cork, Kerry, and other counties.

* County and City of Cork Lying-in Hospital.—Established 1798. 17 beds.

* Eye, Ear, and Throat Hospital, Western Road.—Incorporated 1898. 35 beds. In-patients treated during year, 454; out-patients, 4,238. Clinical Instruction is given during college session. Special demonstrations in the use of the ophthalmoscope, laryngoscope, &c., are given from time to time.

* Fever Hospital and House of Recovery.—Established 1801. 110 beds.

* Maternity.—Established 1872.

* Mercy Hospital.—Established 1857. 80 beds.

GALWAY HOSPITALS.

* County Hospital.—Established 1786. 60 beds.

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* No answer to our request for information received from these hospitals.

IRISH PUBLIC SERVICES.

The Poor-law Medical Service.

For several years past the unsatisfactory nature of the Irish Poor Law Medical Service, as a career for young practitioners, has been evident. In addition to the petty annoyances, the laborious and harassing duties, and the ever-increasing amount of clerical work which the new orders of the Local Government Board impose from time to time, the medical officers are underpaid, their salaries being totally out of proportion to the duties discharged, and in the majority of rural districts barely sufficent to cover the out-of-pocket expenses, such as are incurred in the keep of a horse and man, and other servants. So strictly is the poor law medical officer bound to the discharge of his duties that unless incapacitated by sickness or other cause, or with the permission of the guardians expressly granted, he cannot leave his district for a single day, even if he makes provision for the performance of his duties in his absence by a brother practitioner. It is right to point out to young practitioners the following facts: (1) That the Poor Law Medical Service is one in which there is no promotion. (2) That it is a service where few facilities exist for original research, and still less for further medical culture, especially in the rural districts. (3) That, while medical education has become wider in its requirements and more costly and difficult to procure, almost the same rate of payment as was given to less educated men forty years ago is still offered, and this, too, at a time when lucrative private practice is more difficult to obtain. (4) That there is no compulsory superannuation, and, as a consequence, many old and infirm men are forced to remain in the service long after they have become unfit to discharge the duties, seeing nothing but extreme poverty and perhaps the workhouse itself staring them in the face.

There are about 160 workhouse and about 810 dispensary medical officers. The salary is said to average about £114.

The dispensary medical officer is also *ipso facto* the registrar of births, marriages, and deaths, and medical officer of health for the district, under the Public Health Act, passed in 1873 and amended in 1878. The former office, in country districts, yields between £5 and £10 a year, and the emoluments of the latter appointment in very few cases reach £20, averaging about £12. The medical officer is also vaccinator for the locality, and is required to vaccinate everyone who applies. For each patient a fee of 2s. is paid, along with his salary, by the guardians, and the sum total of these fees varies, according to the populousness of the district, from £4 to £100, an average for the provinces being about £10.

Qualifications.—The qualifications required by the Local Government Board are a licence in surgery, in medicine, and in midwifery; but registration in the "Medical Register," if effected since the passing of the Medical Act, in 1886, fulfils all requirements. Candidates must also be 23 years of age. Candidates recently qualified must possess a certificate of competence in vaccination.

Duties.—The duty of the dispensary doctor is twofold. He has to attend his dispensary or dispensaries on a given day or days in the week. He has also to visit at any hour of the day or night a sick person for whose relief a visiting ticket has been issued and to continue his attendance as often as may be necessary to the termination of the case. Moreover, he has many books to keep and a multitude of returns to make, and in most districts he has to make up all the medicines for the poor.

Workhouse Hospitals.—The number of unions in Ireland is 159, to each of which is attached one or more medical officers, appointed and controlled by the board of guardians in the same manner as the dispensary medical officer. The salary is about the same as that of the dispensary doctor, and the duties of a more easy and satisfactory description, inasmuch as they are confined to daily attendance at the workhouse hospitals, and no night visits out of doors or long journeys across the country are involved.

The Irish Lunacy Service.

This service, at present, affords a comfortable livelihood for 22 resident medical superintendents and 32 assistants. The superintendents receive salaries and allowances ranging, according to the number of inmates of the asylum, from £500 to £1,000 a year, and the assistants receive salaries and emoluments averaging about £200 to £300 a year. There are also a few visiting physicians receiving about £120 a year, but this class of officer is being allowed to die out, and no new appointments will be made. The superintendents and assistants must devote their whole time to their duties.

The appointments of medical superintendents are in the hands of the asylum committee, with the proviso that no one shall be appointed who is not a registered practitioner with five years' service as assistant. The assistant is also appointed by the committee. In addition to these officers, there are, in certain larger asylums, clinical residents, who receive about £50 a year and full allowances. These appointments afford excellent introduction to the higher places in the service.

Tuberculosis Service.

Most of the county and county borough councils are proceeding to appoint tuberculosis officers to carry out work under the Tuberculosis Prevention Act (1908) and the National Insurance Act (1911). The duties proposed are usually (1) to act as superintendent of the county sanatorium; (2) to conduct one or more tuberculosis dispensaries; (3) to act as consultant with practitioners in regard to tuberculous patients; (4) to conduct a bacteriological laboratory; (5) to act as adviser to the local insurance committee and the county council in regard to tuberculosis; (6) to organise and conduct anti-tuberculosis work generally in the county or county borough.

The tuberculosis officers must give their whole time to their duties. The salaries offered vary from £350 to £500 a year, with an allowance for expenses. The lower figure must be regarded as quite inadequate, and candidates before applying for such posts should satisfy themselves that the conditions of service have been approved by the local medical profession.

National Insurance Work.

The National Insurance Act (1911) has provided a certain amount of employment for medical men. As the question of extending the medical benefit of the Act to Ireland is still under discussion, all present arrangements are of a purely temporary character. The conditions of many of the appointments made by the Insurance Commissioners are contrary to professional ethics, and before accepting any appointment in connection with the Insurance Act great care should be exercised to make sure that the conditions of service are satisfactory from a professional point of view. Inquiries on such matters may be directed to the Medical Secretary, Irish Medical Committee, Royal College of Surgeons, Dublin.

Other Appointments.

There are, in addition to those which we have mentioned, certain appointments open to medical practitioners in special localities. They are :—

(1) Surgeoncies to the county infirmaries. (2) Attendance on the Royal Irish Constabulary. (3) Attendance on the Coastguards. (4) Factory Surgeoncies. (5) Attendance upon the depot soldiers who are not otherwise provided for. (6) Attendance on Postal Officials. (7) Prison Surgeoncies.

In each county an infirmary or public hospital, to which one or more surgeons are appointed. In most cases the surgeon receives a salry of about £120 a year, and the appointment is in the hands of the infirmary committee, which is nominated by the county council. Some of the recent appointments have been honorary. The position is a pleasant one, and gives scope for modern surgical work. It is considered the best introduction to county consulting work.

The Constabulary are paid for at the rate of 2s. per month for each member of the force on duty in the district, including the wives and children of the men, but not of the officers. This includes the supply of medicines. The appointment to this position rests with the Inspector-General of the Royal Irish Constabulary, who usually acts upon the advice of the local district inspectors as to the convenience of the men, and, of course, the emoluments depend on the number of Constabulary stations and the number of men in each.

The Coastguard Service.—The duty of the medical officer is to attend the men when sick and to examine candidates either for admission or for superannuation. The fees vary from 5s. to 2s. 6d. per visit. The appointments rest with the Admiralty, but are usually secured for the local Poor Law medical officer. The emoluments depend on the number of stations and men, which are now very few.

Factory surgeoncies are in the gift of the Chief Inspector of Factories in Whitehall. There is a set scale of payment by the factory owner to the inspector for this work, but we believe it is not adhered to, and, in some districts, at all events, the emolument is a matter of arrangement. The amount depends upon the size of the factory, the position being, in Dublin or Belfast, or in other large manufacturing centres, a lucrative one, but in other places scarcely worth taking. The attendance on the military depôts is not worth mentioning.

Attendance upon postal servants is badly paid, except in the large towns, and the inspecting and sanitary duties are onerous.

Surgeons to the prisons are appointed by the Lord Lieutenant. The salaries for visiting surgeons vary from about £40 a year to £150. In the larger prisons there are whole-time surgeons.

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The testimonial, consisting of a handsomely bound autograph book and a cheque, which has been recently subscribed for Dr. W. Winslow Hall, formerly of Kilburn, has now been forwarded to him at his new home at Bournemouth, whither he has retired.

Scotland.

In Scotland medical education is centred round the four Universities. It is very much a matter of convenience, or of fancy, which University the student seeks. Naturally, to those with no local ties, the Edinburgh degree proves attractive, and the number of graduates from overseas who attend the University is proof that its reputation is not declining. In addition to the University degrees, one other qualification to practise can be obtained in Scotland—the joint licences of the Royal College of Physicians, the Royal College of Surgeons, Edinburgh, and the Royal Faculty of Physicians and Surgeons of Glasgow. The standard of examination for the triple qualification (as it is called), though lower than that of the Universities, is yet high enough to test the abilities of the candidates, if one may judge from the number of rejections. The standard, too, is being gradually raised. Of late years there has been a falling off in the number of candidates for the triple qualification, and the majority are not Edinburgh-trained students, but hail from other schools. The diminution of the number of Scottish students is generally ascribed to the operations of the Carnegie benefaction enabling men who formerly would have been unable to do so, to take the University course. One characteristic feature of the Scottish medical schools is the existence, side by side with the University, of extra-mural schools, independent in every respect of the University, and recognised by the latter as schools whose classes qualify for graduation. The extra-mural school has suffered, just as the triple qualification has, from the Carnegie bequest, and there is reason to believe that under modern conditions it is unlikely to occupy such a prominent place as in the past. The proposed introduction by the Universities of a composition fee for the medical curriculum is viewed by the extra-mural lecturers with dislike, because it is feared that if it comes into effect the number of extra-mural students will again decline.

It must also now be admitted that the tendency towards concentration of teaching under the University is stronger than in the past. The increased cost of equipment for teaching, in particular, renders it impossible for an unendowed school to compete with a University. This applies especially to the preliminary and purely scientific subjects of the curriculum up to and including physiology and pathology. It is doubtful whether it will long remain possible for such subjects to be adequately taught by private individuals who have to depend largely or wholly on class fees for their remuneration.

During the last few years the medical curriculum has been subjected to the most careful scrutiny, and it has undergone, and is still undergoing, great changes for the better. An agreement has been entered into by the managers of the Infirmary and the University of Edinburgh, under which the facilities for clinical teaching, and for pathology, are much enhanced. The new arrangements for teaching the special subjects (all of which are now compulsory) will undoubtedly make for efficiency, by distributing the students and preventing overcrowding. It may now be said that the education given in the Scottish schools generally has no need to fear comparisons. The dispensary system is peculiar to Scotland; what we know as a dispensary differs entirely from a dispensary in the English sense of the word. A dispensary is an out-patient clinic, separate from any hospital, staffed by honorary medical officers, and attended for instruction by students. Not the least important part of the student's curriculum is his attendance for several months on outdoor patients in their own homes under the same conditions as obtain in practice among the lower working classes. University students have the privilege of working under extra- as well as intra-mural teachers, while men going up for the triple qualification are limited to the latter. It is not uncommon, however, for a man to come up intending to take the Licence, and to change his mind and go in for a degree, or *vice versâ*, and this can usually be done without much trouble or added expense, provided the change is made early in the course. The maternity training is still a weak spot in the Edinburgh curriculum, and many students are in the habit of going to Dublin or Glasgow for their practical midwifery. When all is said and done, however, the Scottish graduate or diplomate receives an excellent training in his profession, and it can no longer be said that his course, though good in theoretical subjects, is defective in practical work. It is impossible to make any very definite statement as to the relative cost of a medical education in the different schools, as compared with London and Dublin, as so much depends on the extra classes taken out, the mode of living, and so on. The minimum inclusive fees for the licence are £120, for the M.B. degree about £146; but almost every student finds it practically necessary to attend additional classes.

Post Graduate Teaching.

In Edinburgh, past graduate classes covering practically the whole field of medicine take place annually from the middle of July to the end of September. Particulars may be obtained from the Secretary, Post Graduate Courses in Medicine, University New Buildings. In Glasgow there are also post graduate classes in connection with the Western and Royal Infirmaries. During the spring of this year a committee was appointed, on the instigation of Professor Noël Paton, British representative to the International Bureau for Post Graduate Instruction in Berlin, to consider the possibilities of developing this side of medical work in Glasgow, but its labours have not yet been productive of any changes this year.

THE CARNEGIE TRUST.

Under the Carnegie Trust payment is now made "of the whole or part of the ordinary class fees exigible by the Universities from students of Scottish birth or extraction, and of sixteen years of age or upwards, or scholars who have given two years' attendance, after the age of fourteen years, at State-aided schools in Scotland, or at such other schools and institutions in Scotland as are under the inspection of the Scottish Education Department."

The Trust provides for the payment of the class fees of the above students proceeding to graduation in medicine or science. Application for payment of class fees under the conditions of the Trust should be made to the Secretary, Sir William S. McCormick, Merchants' Hall, Edinburgh.

UNIVERSITY OF EDINBURGH.

Four degrees in medicine are granted; Bachelor of Medicine (M.B.), Bachelor of Surgery (Ch.B.), Doctor of Medicine (M.D.), and Master of Surgery (Ch.M.). The first two must be taken together, the last two may be taken separately.

No one is admitted to the degrees of Bachelor of Medicine and Bachelor of Surgery who has not been engaged in medical study for five years after passing a preliminary examination in general knowledge in accordance with the medical ordinances. A degree in Arts or Science of a British or other recognised University is held to supersede such preliminary examination. The subjects included in this general examination are English, Latin, elementary mathematics, and Greek, or French, or German.

The academical year commences on October 1st and extends to not less than 30 teaching weeks, divided into three terms. Two terms are equivalent to one winter session, and one term to one summer session. Two years of the five must be spent at the University, the remaining three years at any other Medical School recognised by the University Court.

During each of the 12 terms preceding the fifth or final year the student must have attended one or more courses on the subject of the curriculum. He must attend chemistry during two terms, practical chemistry, botany, zoology, physics, forensic medicine, and public health during the term, anatomy during five terms, pathology and physiology, each three terms, midwifery, medicine, and surgery during two terms each. He must attend a course of twenty-five lectures on practical pharmacy, or have dispensed drugs for a period of three months in a recognised hospital or dispensary. He must attend a nine months' course in clinical medicine and in clinical surgery. During the fifth or final year he must be engaged in clinical study for at least nine months. In all, before graduation, he must have done hospital work for at least three years, and have acted as clerk in the medical and surgical wards and attended for six months the practice of a dispensary, or of a physician and surgeon. He must also have studied operative surgery, mental diseases *post-mortems*, fevers, diseases of the eye, diseases of children, of the ear, nose and throat, and of the skin, vaccination, practical anæsthetics.

He must attend at least 25 cases of labour under the superintendence of a registered medical practitioner or 12 such cases, and, for at least three months, the practice of a midwifery hospital.

Each candidate is examined both in writing and *vivâ voce*:—

1. On zoology, botany, physics and chemistry.
2. On anatomy and physiology.
3. On pathology, and materia medica and therapeutics.
4. On medicine, surgery, midwifery, forensic medicine and public health.

The order of examination (for students beginning in winter) is as follows:—Physics and chemistry, end of first winter; zoology and botany end of first summer; physiology and anatomy, end of second summer; materia medica and pathology, end of third summer; forensic medicine and public health, end of fourth summer; midwifery, medicine and surgery, end of fifth winter; clinical medicine, surgery, and gynæcology, end of fifth summer. An interval of 3 months must elapse between the date of passing the systematic subjects and the date of appearing for the clinical subjects.

The degree of Doctor of Medicine may be conferred on any Bachelor of Medicine and Bachelor of Surgery, who is of the age of twenty-four years, and who produces a certificate of having been engaged subsequently to his having received the degree of M.B. and Ch.B., for one year in attendance on a hospital, or in scientific work bearing directly on his profession, or in the military or naval medical services, or for two years in practice other than purely surgical. The candidate shall submit to the Faculty of Medicine a thesis on any branch of knowledge comprised in the professional examinations for the degrees of Bachelor of Medicine and Bachelor in Surgery. The candidate will also be examined in clinical medicine and must show practical acquaintance with advanced methods of diagnosis; he may take gynæcology, mental diseases, or diseases of children for one of his three cases. The degree of M.D. is conferred on holders of the degrees of M.B., C.M. (Old Regulations) on the submission of a thesis approved by the Medical Faculty, provided that the candidate has passed the preliminary examination in the subjects of Greek and logic or moral philosophy. Should the candidate elect to do so, he may, however, take the M.D. degree under the new regulations, *i.e.*, substituting an examination in clinical medicine for that in Greek and logic. This course is usually pursued by those who did not pass in these subjects with the rest of their preliminary examinations.

The regulations for the degree of Ch.M. are very similar.

Fees:—The fee to be paid for the degrees of Bachelor of Medicine and Bachelor of Surgery is twenty-two guineas. The fee for the degree of Doctor of Medicine or of Master of Surgery is ten guineas (Old Regulations, £5 5s.).

The total expense of the curriculum, including examination and matriculation fee, is about £146.

Among scholarships, &c., open for competition during the session 1914-15, are the following:—Vans Dunlop scholarships value £100; Buchanan scholarship in midwifery, value £40; Mouat scholarship in practice of physic, £57; Allan Fellowship in clinical medicine and surgery, £55. There are also a great many other bursaries, fellowships and prizes open during the session of 1913-14 and for the details governing entry for these the University Calendar (James Thin, South Bridge, Edinburgh) should be referred to.

Graduation in Public Health.—Degrees (B.Sc. and D.Sc.) are also conferred in Public Health. Candidates must be graduates in medicine and must matriculate for the year in which they proceed for examination. They must (1) have worked at least twenty hours a week during a period of eight months in a recognised Public Health laboratory—five of these months must be spent consecutively in the Public Health Laboratory of the University of Edinburgh (Usher Institute); and (2) have attended a course of lectures on physics in addition to that qualifying for graduation in medicine, and one on geology.

Candidates for the second examination are not admitted until eighteen months have elapsed after having passed M.B., Ch.B., or sooner than six months after the first examination. They must have attended two courses of Public Health one dealing with medicine, the other with engineering in relation to public health. They must also have studied practical sanitary work under a Medical Officer of Health for six months, have had three months' instruction in a fever hospital, and three months' instruction in mensuration and drawing.

Fees for Science Degrees: B.Sc., first examination, £3 3s.; B.Sc., second examination, £3 3s.

Diploma of Tropical Medicine.—The University Diploma of Tropical Medicine and Hygiene is conferred on graduates of the university, and on registered practitioners who have resided abroad and who receive permission of the senatus to become candidates for the diploma. The course includes practical bacteriology, tropical diseases and hygiene, the zoological character and life history of disease-carrying insects and venomous animals, clinical instruction at an hospital for tropical diseases The examination is held in December and June, the fee being £4 4s. A special certificate in Tropical Diseases is also granted under less stringent regulations, and after a shorter course.

Diploma in Psychiatry.—The course extends over one year, during which candidates must attend classes on (1) Anatomy and (2) Physiology of nervous system, (3) Pathology, (4) Bacteriology in relation to nervous system, (5) Psychology, (6) Clinical Neurology, (7) Psychiatry, (8), Clinical Psychiatry. There are two examinations, one on anatomy, physiology, pathology and bacteriology; the second on the remaining subjects. The fees amount to about thirty-seven guineas.

University Hall, Edinburgh.—In Edinburgh there are numerous halls of residence for under-graduates. In each house there are private studies with or without bedrooms, and common sitting and dining rooms. The charges are moderate. It is a satisfactory indication of the comfort of the Hall that many graduates live in it and are willing to help or coach the undergraduates for moderate fees. To gain admission two references must be produced from past or present residents, or other suitable person. These are considered and voted on at a house meeting, and any unruly member may be expelled by a similar meeting of the residents

Medical School for Women.—Classes for women are carried on in the College of Surgeons and the New School by Lecturers recognised by the University.

Information may be obtained, on application to the Dean, School of Medicine for Women, Surgeons' Hall, Edinburgh. Session begins October 1st, 1914. The classes qualify both for the Edinburgh University degree and for the Licence of the Triple Board, and are for women alone. The University of Edinburgh does not recognise certificates presented by female candidates for mixed classes without special cause shown. Women students are eligible for the benefits of the Carnegie Bequest.

UNIVERSITY OF GLASGOW.

The University of Glasgow is both a teaching and an examining body, but admits to examination only those candidates whose course conforms to its own regulations. Within certain limits provision is made for accepting instruction given by recognised medical schools and teachers; but not less than one half of the subjects other than clinical must be taken in this or some other recognised University or College, and at least two years of the course must be taken in Glasgow University. Four degrees, open both to men and to women, are conferred—M.B. and Ch.B. (always conjointly), M.D. and Ch.M. A preliminary examination must be passed in (1) English, (2) Latin, (3) Mathematics, and (4) an Additional Language, namely, Greek, French, German, Italian, or other approved language, with possible options to students whose native tongue is not English, and, on passing, students must register in the books of the General Medical Council. For M.B. and Ch.B. a curriculum of five years is required. A syllabus with full details of the curriculum and of the preliminary examination may be had, post free, on application to the Registrar.

The fees for M.B. and Ch.B. are £23 2s.; for M.D. £15 15s., and for Ch.M. £15 15s. For hospital attendance there is an initial fee of £10 10s., with a further fee of £3 3s. for each winter session, and £2 2s. for each summer session, of clinical instruction. There are three very extensive general hospitals in the city, which afford exceptional opportunities for clinical work, while the Royal and other asylums, the City Fever Hospitals, the Maternity Hospital, the Sick Children's Hospital, the Eye Infirmary, &c., give facilities for the study of special branches.

The degrees of B.Sc. and D.Sc. in Public Health and of B.Sc. in Pharmacy, are also now conferred. Of late the University has made considerable efforts to extend its laboratory accommodation and equipment, to augment its teaching staff, and to encourage post-graduate and research work. Within recent years there have been provided new laboratories in the departments of pathology, anatomy (costing £13,000), chemistry, and surgery (costing £9,900); while new laboratories, costing, with equipment, upwards of £50,000, have been erected for the departments of physiology, materia medica, and medical jurisprudence and public health.

Bursaries and prizes to the annual amount of about £1,000 are appropriated to medical students, including an Arthur bursary for women, £20 for three years.

Several bursaries open to students in any faculty are not infrequently held by medical students, and Scholarships and Fellowships to the annual amount of £1,600 may be held by medical students who have gone through the Arts course.

Queen Margaret College for Women. — Founded in 1883 (by the Glasgow Association for the Higher Education of Women, which was formed in 1877 with the object of bringing University instruction, or its equivalent, within the reach of women), Queen Margaret College in 1890 added to its faculty of Arts a School of Medicine for Women. This was organised entirely on University lines, and with the view of preparing for University degrees; and when, in 1892, in consequence of the Ordinance of the University Commissioners authorising the Scottish Universities to admit women to instruction and graduation, Queen Margaret College became the Women's Department of the University of Glasgow, its classes in medicine taken previously to its incorporation with the University were recognised as preparing for the degree. A full course of study for M.B. and Ch.B. is given by University professors and lecturers, with excellent facilities for hospital and dispensary work in the Royal Infirmary and other hospitals. A Hall of Residence for the students was founded in 1894. Fees for the classes at Queen Margaret College may be paid by the Carnegie Trustees; and several bursaries are open to women students of medicine.

The Winter Session begins on 12th October. The prospectus can be obtained from the Mistress, Miss Melville, Queen Margaret College, Glasgow.

UNIVERSITY OF ABERDEEN.

The University of Aberdeen possesses under its charters the amplest privileges granted or enjoyed by any academical institution. It confers degrees in the five faculties of Arts, Science, Divinity, Law and Medicine. It also grants diplomas in Public Health and Agriculture. It is, moreover, a teaching body equipped with twelve distinct chairs in the various branches of medicine and surgery. The majority of the professors devote their whole time to the work of the chairs. There are fully-equipped laboratories, the accommodation for which has recently undergone considerable extension. The degrees of M.B. and Ch.B. are conferred together; they cannot be taken separately. The curriculum of study is nearly the same as in the University of Glasgow; the regulations of the preceding columns will therefore apply here. Two years must be passed at Aberdeen. [illegible] class fees, each candidate for the degrees of M.B. and Ch.B. must pay a fee of £3 3s. in respect of each of the first three professional examinations, and [illegible] for the final examination. The total cost of Matriculation, Class, Hospital and Examination Fees, and Degree Fees, amounts to about [illegible]. Besides the [illegible] students have the opportunity of attending [illegible] other than university [illegible] special courses of instruction are given. Particulars [illegible] hospital practice [illegible]. The professional examinations are held twice in each year, namely, in March and July, immediately after the close of the winter and summer sessions.

Bursaries.—Bursaries, Scholarships and Fellowships to the number of [illegible] and of the annual value of [illegible] may be held by students in medicine. (See University Calendar.)

The Degree of M.D.—The degree of Doctor of Medicine may be conferred on any candidate who has obtained the degrees of M.B. and Ch.B., is of the age of twenty-four years, and has been engaged subsequently to his having received the degree of M.B. for one year in attendance on a hospital, or in scientific research bearing on his profession, or in military or naval medical service, or for two years in medical practice, and has presented a thesis which has been approved of by the Medical Faculty. Candidates are required to pass an examination in clinical medicine or a special Department of Medical Science in addition to presenting a thesis. Similar regulations apply to the degree of Ch.M. (Master in Surgery).

A Diploma in Public Health is conferred after examination on graduates in medicine of any University of the United Kingdom. Regulations may be seen in the "Calendar," or obtained on application to the Secretary of the University.

Aberdeen Royal Infirmary.—This is a well-equipped institution, containing [illegible] beds, and affords excellent opportunities for clinical study to students of the Aberdeen University. The city, moreover, offers inducement in the way of cheaper living and [illegible] to that obtained in Edinburgh and Glasgow, and will doubtless be preferred by some on this account.

ST. ANDREWS UNIVERSITY.

UNITED COLLEGE, ST. ANDREWS, AND UNIVERSITY COLLEGE, DUNDEE.

This University confers degrees in Medicine. It grants the degrees of M.B., Ch.B., M.D., and Ch.M. The degrees of this University are open to either sex. For the degrees of M.B., Ch.B., two of the five years of medical study must be spent in the University of St. Andrews; the remaining years may be spent in any University of the United Kingdom [illegible]

any University in the United Kingdom. Twelve months must elapse between the date of graduating in medicine and entering for the examinations for the diploma. The course of study required consists of a six months' course in practical chemistry, bacteriology and the pathology of diseases transmissible from animals to man in a laboratory of the University of St. Andrews; six months' work with a medical officer of health; [illegible] clinical instruction in infectious diseases. Subjects of first examination:—Chemistry, physics, bacteriology, and meteorology. Second examination:—Sanitation, sanitary law, vital statistics, medicine in relation to public health.

[illegible] was instituted and made to form part of the University [illegible] and the whole medical curriculum may be taken at the Medical School in Dundee. The United College, St. Andrews, offers courses for the first two years of professional study.

BURSARIES AND SCHOLARSHIPS.

United College, St. Andrews.—[illegible]

University College, Dundee.—[illegible]

The fees for the complete course, exclusive of the examination fees, amount to about [illegible].

Preliminary Examination.—The preliminary examination in Medicine will take place at the United College, St. Andrews, on September [illegible]. Each candidate must apply to the Secretary for a schedule to be filled up and returned not later than [illegible]. The subjects of examination are English, Latin, Elementary Mathematics, and either [illegible] French or German, [illegible]

Fees.—Clinical medicine and clinical surgery, [illegible] winter session; [illegible] summer session.

Faculty Degrees.—The fees for M.B., Ch.B., are the same as at other Scottish Universities—[illegible]. Fee for the degree of M.D. and also for that of Ch.M. is [illegible] guineas in each case. For the Diploma in Public Health examinations the fee is [illegible] for each of the two examinations.

Class Fees.—The fee payable for each of the following classes is [illegible] guineas, viz.:—Chemistry, physics, botany, zoology, physiology, anatomy, materia medica, pathology, forensic medicine and public health, medicine, surgery, and midwifery. [illegible]

Dundee District Asylum.—[illegible]

Dundee Royal Infirmary.—[illegible]

treatment. Six resident qualified assistants and an outdoor obstetric assistant are appointed annually. Clinical clerks and dressers are attached to the physicians and surgeons, and students are appointed to assist in the post-mortem room. The instruction given at the Infirmary is recognised for purposes of graduation by the Scotch Universities, the University of London, the University of Cambridge, the Royal University of Ireland, and by the Royal Colleges of England and Scotland. Hospital Tickets for the Infirmary, £2 2s. each session, or £3 3s. a year. Perpetual, £10 in one payment, or £10 10s. by instalments.

Further information will be found in the Calendar of the University published by Messrs. Blackwood and Sons, Edinburgh, the "Calendar of University College," Dundee (obtainable from the Secretary), or can be had from the Dean of the Medical Faculty, Professor J. A. Kynoch.

THE COLLEGES.

The Royal Colleges of Physicians and of Surgeons of Edinburgh, and Royal Faculty of Physicians and Surgeons of Glasgow have arrangements by which the student may obtain the diploma of the co-operating bodies, and can register three diplomas under the Medical Acts—*viz.*, Licentiate of the Royal College of Physicians of Edinburgh, Licentiate of the Royal College of Surgeons of Edinburgh, and Licentiate of the Royal Faculty of Physicians and Surgeons of Glasgow.

The three bodies grant their *single* qualifications only to candidates who are already registered as possessing another and opposite qualification in medicine and surgery as the case may be.

Regulations of the Conjoint Board of the Royal Colleges of Physicians and of Surgeons of Edinburgh and the Royal Faculty of Physicians and Surgeons, Glasgow.—The candidate must produce certificates of having attended the following course of lectures, the certificate distinguishing the sessions and the schools in which the courses were attended. Anatomy, six months; practical anatomy, twelve months; chemistry, six months; practical chemistry, three months; materia medica, three months; physiology, six months; medicine, six months; clinical medicine, nine months; surgery, six months; clinical surgery, nine months; midwifery, three months; medical jurisprudence, three months; pathology, three months. The candidates must also produce the following certificates:—(*a*) Of having attended six cases of labour under the superintendence of a registered practitioner. (*b*) Of having attended for three months instruction in practical pharmacy. The teacher must be a member of the Pharmaceutical Society of Great Britain, or the Superintendent of a laboratory of a public hospital or dispensary, or a registered practitioner, or a teacher to a class of practical pharmacy. (*c*) Of having attended for twenty-four months the medical and surgical practice of a hospital, containing eighty patients, and possessing distinct staffs of physicians and surgeons. (*d*) Of having attended for six months the practice of a public dispensary, or of having assisted for six months a registered practitioner. (*e*) Of having been instructed in vaccination.

First Examination, Fee £5.—The First examination shall embrace chemistry, physics, and elementary biology, and shall take place not sooner than the end of the first year, including a winter and summer session. Candidates who desire to enter for the first professional examination must produce certificates of attendance on chemistry, practical chemistry, anatomy, and six months' practical anatomy.

Second Examination, Fee £5.—The Second examination embraces anatomy and physiology and shall not take place before the termination of the summer session of the second year of study. Candidates must produce certificates of attendance on anatomy, practical anatomy, and physiology.

Third Examination, Fee £5.—Comprises the subjects of pathology, materia medica, and pharmacology and advanced anatomy.

Final Examination, Fee £15.—The Final examination embraces medicine (including therapeutics and medical anatomy, clinical medicine); surgery (including surgical anatomy and surgical pathology); clinical surgery; midwifery and gynæcology, medical jurisprudence and hygiene; and shall not take place before the termination of the full period of study.

Subjects of Preliminary Education: (1) English grammar and composition; (2) Latin, grammar, translation from specific authors and easy unseen translation; (3) (*a*) arithmetic, to vulgar and decimal fractions; (*b*) algebra, to simple equations; (*c*) geometry, to the first two books of Euclid; (4) elementary mechanics of solids and fluids, comprising the elements of statics, dynamics, and hydrostatics; (5) one of the following:—(*a*) Greek; (*b*) French; (*c*) German; (*d*) Italian; (*e*) any other modern language; (*f*) logic; (*g*) botany; (*h*) zoology; (*i*) elementary chemistry.

Qualification in Public Health.—The College of Physicians, in association with the Royal College of Surgeons of Edinburgh and the Royal Faculty of Physicians and Surgeons of Glasgow, confers a certificate of competency in public health. The examinations are held in April and October. Fee, £10 10s.

For the special regulations of the Royal College of Surgeons of Edinburgh, intending candidates should apply to Mr. James Robertson, 48 George Square, Edinburgh; and for those of the Royal College of Physicians, to the Secretary.

The Fellowship of the Royal College of Physicians of Edinburgh is conferred only by election, and the candidate must have been a member of the college for at least three years, and have attained the age of twenty-seven years.

The Membership is conferred only on a licentiate of a college of physicians or graduate in medicine of a British or Irish University, provided he shall have attained the age of twenty-four years and shall have passed an examination on: (1) medicine, including therapeutics; (2) on one of the following optional subjects, *in which a high standard of proficiency is expected*:—(*a*) a department of medicine specially professed; (*b*) psychological medicine; (*c*) pathology; (*d*) medical jurisprudence; (*e*) public health; (*f*) midwifery; (*g*) gynæcology. The examination is of a searching character.

The fee for membership is 35 guineas, for fellowship 38 guineas, with a stamp duty of £25—£101 13s. in all.

The licence, or single qualification in medicine, is conferred on candidates who already possess a recognised qualification in surgery. The examinations for this licence are held on the first Wednesday of each month, save those of September and October, in medicine, materia medica, midwifery and medical jurisprudence. The fee is £15 15s., and intending candidates should communicate with the Secretary of the College at least eight days before the date of examination.

The Fellowship of the Royal College of Surgeons of Edinburgh is conferred (except under certain conditions as to age and professional standing) only on candidates who have passed a special examination, and have previously obtained a diploma from the college, or from either of the Colleges of Surgeons of England or Ireland, or the Royal Faculty of Physicians and Surgeons of Glasgow, or the surgical degrees of the Universities of Great Britain, and who are twenty-five years of age. The subjects for examination for those who are already Licentiates of the College are on the principles and practice of surgery, clinical and operative surgery, and one optional subject.

Those who are not Licentiates of this College: on principles and practice of surgery, clinical and operative surgery, surgical anatomy, and one optional subject; and in such supplementary subjects as have not, in an adequate manner, been included in the examination for the registrable surgical qualification possessed by such candidates, and which are required in the examination for Licentiates of this College.

The optional subjects shall embrace: (*a*) Surgery, special branches; (*b*) advanced anatomy and physiology; (*c*) surgical pathology and morbid anatomy; (*d*) midwifery and gynæcological medicine and surgery; (*e*) medical jurisprudence and hygiene; (*f*) practice of medicine and therapeutics. The examinations are written, oral, and practical. Three weeks' notice must be given to Mr. James Robertson, from whom full particulars as to certificates required may be obtained. The fee is £30 for those who hold the diploma of Licentiate of the College, and £45 to others (no stamp duty is payable on the diploma). Registered practitioners, aged not less than 40, who have been in practice for not less than ten years, and who have highly distinguished themselves by original investigations, may under special circumstances be elected without examination. Women are not admitted to the Fellowship of either college.

Licence.—The examination embraces the principles and practice of surgery (including operative surgery and surgical pathology), clinical surgery, and surgical anatomy, and shall not take place before the termination of the full period of study. Fee, £15 15s.

Dental Diploma.—Every candidate for the dental diploma must have attended the general lectures and courses of instruction required at a University or an established medical or dental school recognised by the College as qualifying for the diploma in surgery. The fee is £10 10s.

Edinburgh Royal Infirmary.—Clinical instruction is afforded at this institution, which contains 900 beds under the supervision of professors of the University and the ordinary physicians and surgeons of the Infirmary. Special instruction is given on diseases of women, physical diagnosis, diseases of the skin, eye, ear, throat and teeth, and anæsthetics. Separate wards are devoted to venereal diseases, diseases of women, diseases of the eye, also to cases of incidental delirium or insanity, and three wards are specially set apart for clinical instruction to women students. Post-mortem examinations are conducted in the anatomical theatre by the pathologists. The perpetual fee, on one payment, £12; the annual fee, £6 6s.; half-yearly, £4 4s.; quarterly, £2 2s.; monthly, £1 1s. Separate tickets amounting to £12 12s. entitle the student to a perpetual ticket. No fees are payable for any surgical or medical appointment.

The appointments are as follow:—

1. Resident physicians and surgeons are appointed and live in the house free of charge. There is no salary. The appointment is for six months.

2. Non-resident physicians and surgeons (in the special subjects and for out-patient work) are appointed for six months. These appointments may be renewed.

3. Clerks and dressers are appointed by the surgeons and physicians. These are open to all students and junior physicians holding hospital tickets.

4. Assistants in the pathological department are appointed by the pathologists to conduct post-mortem examinations in the anatomical theatre.

Royal Hospital for Sick Children.—During the year three courses of clinical instruction are given by the staff of the hospital, who are University Lecturers on the subject. The course consists of clinical lectures, ward cliniques, attendance at *post mortems* and out-patient cliniques. Hospital tickets, £1 1s.

SCHOOL OF MEDICINE OF THE ROYAL COLLEGES, EDINBURGH.

The government of this school, established in 1505, is now vested in a board which is equally representative of the two Royal Colleges and the Lecturers, the school being styled "The School of Medicine of the Royal Colleges, Edinburgh." The lecturers deliver qualifying courses of instruction of the same duration and scope as those delivered within the University, while a large number of non-qualifying courses on special subjects of interest to medical science, but which are not required for graduation, are delivered both in the winter and summer sessions. The students who attend the classes of the School of Medicine are largely students proceeding to the University degree, as well as those who are intending to take other diplomas, such as the triple qualification. For particulars apply to the Dean of the School, 11 Bristo Place, Edinburgh.

The minimum cost of the education in the School of Medicine for the triple qualification of physician and surgeon from the Royal Colleges of Physicians and Surgeons of Edinburgh and the Royal Faculty of Physicians and Surgeons of Glasgow, including the fees for the joint examinations, is about £120, which is payable by yearly instalments during the period of study.

The Winter Session opens October 6th.

GLASGOW EXTRA-MURAL SCHOOL.

St. Mungo's College and Glasgow Royal Infirmary.—This college was incorporated in 1889 under its present title, being formerly known as the Glasgow Royal Infirmary School of Medicine. The Medical Faculty occupies buildings erected for the purpose of the medical school in the grounds of the hospital. The college is equipped with a complete electric light installation, and a powerful electric educational lantern. Attendance on the classes in St. Mungo's College qualifies for the medical degrees of the Universities and the medical and surgical colleges in accordance with their regulations. A syllabus, giving details as to classes, fees, &c., may be had on application to the Secretary of the Medical Faculty.

The Royal Infirmary, which is at the service of the College for teaching purposes, is one of the largest general hospitals in the kingdom. It has 600 beds available for clinical instruction, in addition to an ophthalmic department, and it has special wards for diseases peculiar to women, venereal diseases, burns, and diseases of the throat, nose, and ear. At the dispensary special advice and treatment are given in diseases of the eye, ear, teeth, and skin, in addition to the large and varied number of ordinary medical and surgical cases which in a great industrial centre daily require attention. Students at the college and hospital get the benefit of dispensary experience free of charge, and no better or wider field for seeing hospital practice and receiving clinical experience can be found than in the Glasgow Royal Infirmary.

Clinical instruction in midwifery is given in the fine new Maternity Hospital by Prof. Jardine.

Appointments.—All appointments are open. There are five physicians' and ten surgeons assistants, who obtain free board and residence in the hospital and act in the capacity of house physicians and house surgeons. There is also a house surgeon for the ophthalmic department. These appointments are made for six months, and are open to gentlemen who have a legal qualification in medicine and surgery. Clerks and dressers are appointed by the visiting physicians and surgeons. From the large number of cases of acute diseases and accidents of varied character received, these appointments are valuable to students. Assistants are also appointed for the pathological department.

Fees.—The fees for Lectures, including hospital, attendance necessary for candidates for the Diplomas of the English, Scotch, and Irish Colleges of Physicians and Surgeons, amount to about £80.

Royal Infirmary.—Fees: (1) Hospital attendance, dispensary, &c., perpetual ticket, £7; season ticket, six months, £2 2s.; three months, £1 1s. Separate payments amounting to £7 7s. entitle a student to a perpetual ticket on returning previous season tickets. (2) Clinical instruction, six months, £3 10s.; three months, £1 15s.

Dental Curriculum.—Students studying with a view to the dental diploma can obtain instruction in the following subjects: Physics, chemistry, anatomy, physiology, surgery, practice of medicine, and materia medica. The special dental courses may be obtained in the Dental School of the Incorporated Glasgow Dental Hospital, 158, Renfrew Street, Glasgow, Particulars may be had from D. M. Alexander, Esq., solicitor, 186, St. Vincent Street, Secretary.

The Anderson College of Medicine, Glasgow.—Founded in 1800. The modern, excellently equipped buildings of this school are situated to the west of the entrance to the Western Infirmary, and within four minutes' walk of the University. Extensive laboratory accommodation is provided for practical anatomy, practical chemistry, practical botany, practical zoology, practical physiology, practical pharmacy, operative surgery and public health.

The various courses of instruction qualify for all the Licensing Boards in the United Kingdom, and for the Universities of London, Durham, Edinburgh, and Glasgow, under conditions stated in the calendars. The courses in public health (laboratory and lectures) are also recognised by the Universities of Cambridge, London, etc. Session opens 12th October, 1914. For syllabus, apply to the Secretary of the Medical Faculty, The Anderson College of Medicine, Glasgow, W.

The Carnegie Trust pays the fees of students at Anderson's College on conditions regarding which particulars may be obtained from Sir W. S. McCormick, LL.D., Carnegie Trust Offices, Edinburgh.

Class Fees.—For each course of lectures (anatomy, ophthalmic medicine and surgery, aural surgery, diseases of throat and nose, mental diseases, and public health excepted), first session, £2 2s.; second session (in Anderson's College), £1 1s. For practical classes (except anatomy, chemistry, and public health), namely, botany, zoology, physiology, pharmacy, operative surgery, first session, £2 2s.; second session, £2 2s. *Chemistry.*—Lectures, £2 2s.; practical chemistry, £3 3s. *Botany and Zoology.*—Reduced fees for lectures with laboratory work in botany or in zoology, during same summer session, £3 3s.; for lecture class or practical class separately, in botany or in zoology, £2 2s. *Ophthalmic Medicine and Surgery* (including hospital practice), aural surgery, diseases of thoat and nose, and mental diseases, fee for each course, £1 1s. *Anatomy Class Fees.*—Winter.—First session, lectures and practical anatomy, £5 5s.; practical anatomy alone, £2 2s. Second session, lectures and practical anatomy, £4 4s; practical anatomy alone, £2 2s. Summer.—Regional course or special dental course (each including nervous system) and practical anatomy, £3 3s.; regional anatomy course or special dental course alone, £2 2s.; practical anatomy alone, £1 11s. 6d.; osteology and practical anatomy, £2 12s. 6d.; osteology alone £1 11s. 6d. *Public Health Laboratory.*—Fee for six months' course £12 12s. *Matriculation Fee.*—For the year, 10s.; for one class alone in winter, 5s.; for summer session alone, 5s.

Glasgow Western Medical School.—This school is situated beside the principal entrance to the University grounds and upon the Hillhead side, as the Anderson College of Medicine is at the other extremity. Being also near the Western Infirmary this school is conveniently placed for students desirous of taking extra-mural classes. Lectures and demonstrations are given, in the usual winter and summer sessions, on anatomy, surgery, medicine, midwifery and gynæcology, ophthalmology, dermatology, and diseases of the ear, throat, and nose. Some of the classes qualify for graduation and for Scottish diplomas. The usual class fee is £2 2s. There is no matriculation fee. Further information may be obtained from the Secretary.

The Glasgow Royal Maternity and Women's Hospital.—This hospital was, as regards the larger portion of it, recently built after visits had been paid to a number of British and Continental hospitals by a committee of doctors, who gave careful preliminary study to all the aspects of the question before building was begun. The obstetrical and gynæcological work is carried on in this new building, which is fully equipped, while the old hospital building adjoining is now chiefly used as nurses' quarters. The hospital provides a training school in practical obstetrics for medical students, ladies' nurses and midwives. The medical staff, both on the obstetric and gynæcological sides, are the leading physicians in these departments in the city. Out-door practice in the various quarters of the city is obtained from the hospital as a centre. The labour wards in the hospital are large, light and airy, and there is an isolation block for septic cases. Further information may be obtained from the House Superintendent.

Among the other important institutions which assist in making Glasgow one of the foremost places of medical education in the Empire are the Western Infirmary, with 595 beds, adjoining the University and closely connected with it; the Victoria Infirmary, in the southern part of the city, with nearly 300 beds, where clinical courses in a variety of subjects are given; the Glasgow Eye Infirmary, with 100 beds; the Royal Hospital for Sick Children, the largest hospital of its kind out of London; the Royal Samaritan Hospital for Women, etc.

END OF EDUCATIONAL NUMBER.

CORRESPONDENCE.

FROM OUR SPECIAL CORRESPONDENTS AT HOME.

SCOTLAND.

Scottish Medical Service Emergency Committee.

The following gentlemen, representing the various Medical Colleges and Universities of Scotland, have formed themselves into an "Emergency Committee" for the purpose of assisting to meet the immediate difficulties, in regard to medical practice among the civil population, which have arisen or may arise owing to the departure of practitioners summoned to take up military duty; it being understood that some 300 Scottish practitioners have been thus called away from their practices, and more are liable to be called for at short notice. In large towns these difficulties are little felt, for the practitioners remaining have willingly undertaken to attend to the work and to safeguard the interests of their absent colleagues. But in smaller places and in rural districts such friendly arrangements are less easily made. *Locum-tenentes* are not numerous, and the rate of remuneration they expect tends to become prohibitive. The Committee comprises the Presidents of the Royal Colleges of Physicians and of Surgeons of Edinburgh, the President of the Royal Faculty of Physicians and Surgeons of Glasgow, the Dean of the Faculty of Medicine, University of St. Andrews; the Deans of the Faculty of Medicine of Aberdeen, Edinburgh and Glasgow Universities, with the following additional names:—Dr. John Adams, Glasgow; Dr. G. C. Anderson, Methil; Dr. John Gordon, Aberdeen; Dr. J. R. Hamilton, Hawick; Drs. J. C. M'Vail, John Playfair, and John Stevens, of Edinburgh; Dr. Norman Walker, Convener. The Committee is now ready to receive communications from medical practitioners in Scotland who are desirous either of obtaining or of affording professional help in the circumstances above indicated. All such communications should be addressed to The Convener, Medical Emergency Committee, Royal College of Physicians, Edinburgh.

Glasgow and the Red Cross.

The Glasgow Branch of the Red Cross Society has four committees: upon personnel, upon accommodation, upon gifts in kind and upon work parties. The two former are only for gathering information to pass on to the Hospital Accommodation and Equipment Committee of the Scottish Branch. The two latter pass on what they receive to the Stores Committee of the Scottish Branch. The Scottish Branch leaves all matters referring to the purchase, storage and despatch of medical and surgical stores, as before, under the control of the secretary, Major Fleming. The Stores Committee receives all gifts in kind and produce of work parties from the county branches as well as the Glasgow Branch; has requisitions passed on to it by the Executive; fills the same purchasing subject to the sanction of the Finance Committee what is necessary to complete these requisitions, and despatches same as directed.

Glasgow's Medical Officer.

At the outbreak of the war the Corporation Health Committee appointed Dr. William Wright, chief assistant to Dr. A. K. Chalmers, to be acting Medical Officer of Health for the city during the absence on Territorial duty of his chief, who is a Lieutenant-Colonel in the Royal Army Medical Corps, Territorial branch. We regret to learn that Dr. Wright has since been seized with illness and has had to be removed to a nursing home to undergo an operation for appendicitis. In these circumstances the Health Committee have appointed Dr. Alexander McLean to be acting Medical Officer. Dr. McLean has been an assistant Medical Officer in Glasgow for three years, and was previously for two years in the Bacteriological Department at the Sanitary Chambers. He is a native of Glasgow and a graduate of Glasgow University.

Students for the War.

In reference to a letter written by Admiral Sir Cyprian Bridge to *The Times*, the President of Glasgow University Students' Representative Council has had something to say. The Admiral, in his letter, deplored the fact that the more well-to-do portion of society had not responded to Britain's appeal in a degree commensurate with its social advantages and consequent obligations; and he referred in particular to the universities. The President of Glasgow University S.R.C. replies that whatever may be the case elsewhere, Glasgow cannot point the finger of scorn at her university. Of the 400 men who constitute the membership of Glasgow University Officers' Training Corps, about 90 per cent. have volunteered for service since the outbreak of the war. As it is understood that the Officers' Training Corps cannot for the present exceed its ordinary establishment, a large number of students, anxious to be of service to their country as soon as possible, have volunteered in the medical and other services. Obviously, however, this mainly applies to medical students, and a considerable number are left who have had no opportunity of entering the country's service under the auspices of the university. Their only immediate chance of enlistment is in the ranks of the new army, but at the same time they would like to maintain their integrity as a body. Lord Kitchener has intimated that such an attitude is a worthy one, and that a body so formed will be recognised by the War Office. Accordingly, at the Students' Union of Glasgow University recruiting is proceeding of a contingent of men from the student community.

The University Session and the War.

It still wants more than a month till the time for the opening of the winter session of the universities. Some students have written to the newspapers suggesting that the classes in the universities, etc., should not resume this winter. In the Faculty of Medicine in Glasgow there are about 150 final year students, the majority of whom are due to qualify in March next. If the university and other medical schools were to close down it would be open to these men, they say, to join Lord Kitchener's second army. By so doing they would be fit for foreign service six months hence. But the contention of other students is that if they continue their classes, these students will by that time be in a position to render greater service to their King and country as qualified surgeons; in other words, that 150 surgeons six months hence will be worth more than 150 privates now. This is a difficult question to decide; but in any case it does not appear what good would come from closing the universities. Many of the students are under the age necessary for the army.

LETTERS TO THE EDITOR.

[We do not hold ourselves responsible for the opinions expressed by our Correspondents.]

FORCIBLE FEEDING.

To the Editor of The Medical Press and Circular.

Sir,—Dr. Sers and an anti-suffragist (who is of course anonymous and terms himself "An Obscure Practitioner") continue the discussion of this subject and of my facts, which with a sad misuse of our language they refer to as "quibbles."

As regards the anti-suffragist he is, like all his class, so ashamed of his advocacy of this loathsome treatment of prisoners that he does not venture to append his name to the attacks he makes upon my views of political liberty. How typical of anti-suffragism!

His leader, Mr. McKenna, has also repeatedly refused to give even to the House of Commons the names of those medical practitioners who he stated had testified in favour of his prison forcible feeding, that it was everyday medical practice, that there was nothing painful or disagreeable about it, etc., etc.—statements so obviously untrue (especially after three prisoners had been very nearly killed) that naturally their authors insisted on their names being concealed.

Safe in like anonymity, your correspondent proceeds to give your readers a wholly untrue statement, firstly of the principles of suffragism, and secondly of my views, while finally he accuses me of "sickly sentimentalism." This is exactly the spirit of that notorious anti-suffragist the "War Lord," who, with his artistocratic following, considers our condemnation of his violation of neutrality, his murders of wounded, of unarmed men, women and children, and of his destruction of cities and villages, as mere sickly sentimentalism on our part. Since, then, like his comrade, "An Obscure Practitioner," has no place for humanity and civilisation in his ideas of national life and politics, let us leave him and consider Dr. Sers's misunderstanding of the suffrage movement and the present state of things.

Dr. Sers must begin at the beginning and study the history of the franchise movement since the middle of the 18th century. He will then learn that outrages have invariably developed as the result of the obstinate refusal of those who had a vote to recognise that their fellow subjects were just as much entitled as themselves not only to take part in the work of their country, but also to have a word in deciding what laws should be passed, and which all of them alike have to obey. The present outrages are, of course, a mere repetition of history from the time of Wilkes, of Captain Swing, and of the Reform Riots; the arson which Mr. Hobhouse first suggested to the suffragettes was efficacious in drawing attention to the need for reform and enfranchisement. Dr. Sers, like our ancestors, instead of recognising the just claims of our fellow subjects, would rather foment outrages by continuing the old brutal method of trying to crush the natural evolution of universal suffrage which has already fructified in our more enlightened Dominions. He advocates forcible feeding now as a "deterrent," and compares it to hanging, which he also suggests is the proper way to deal with homicides. In the first place he might, I think, have done me the justice of acknowledging that it was I who, in my letter of the 26th, proved that prison forcible feeding is used as a "deterrent" on certain prisoners, and was not, as he alleged on the 12th, "medical treatment of hunger strikers." At any rate, he has learnt one fact. But, further, his analogue of hanging as a cure of homicide shows how completely he misunderstands the principles of national freedom and of social reform. Hanging does not deter. Surely every prison enactment of the last 100 years is a proof of that well-known fallacy. Surely, also, every effort of modern civilisation is to treat social evils and crimes as we try to do diseases—namely, by prevention. We don't prevent homicide by hanging people after the event; the only way to prevent it is to attack the causes of homicide. Further, everyone knows that the cause of 95 per cent. of homicide is alcohol. The civilised method of deterring people from homicide, therefore, is not by hanging them after they have developed the homicidal impulse, but by preventing the sale of the poisonous drug which causes the crime while it enriches the brewer and his shareholders.

So, too, with the franchise. The stupid folly of the anti-democrat has led him on from the first gross injustice to the women who put the question constitutionally to Sir Edward Grey at his Manchester meeting, October 13th, 1905, to the brutality of forcible feeding introduced by Lord Gladstone in September, 1909, to the indecencies and brutalities of the police at Westminster in November, 1910, and now to the false position in which our profession is being placed owing to this disgusting and grossly partial treatment of prisoners who hunger strike because, being voteless, they have no means whatever of protest against injustice. On this last point—namely, the way in which forcible feeding by prison doctors has totally destroyed British justice—I cannot understand how anyone who, like Dr. Sers, reflects on this matter, can quietly acquiesce in his profession being made the instrument of wholesale injustice and perversion of the law. It was in consequence of these iniquitous cases being made the subject of questions that ultimately Mr. McKenna himself was obliged to admit in the House of Commons that his system of forcible feeding by the prison doctors had led to the following abominable state of things, which can be stated in figures, although the Home Office has for obvious reasons refused to give the exact numbers. Thus in the first place, though all the hunger-striking prisoners had been duly sentenced by the Courts, from 15 to 20 per cent were immediately set at liberty by the favour of the Home Secretary on the amazing ground that it would be dangerous to attempt to forcibly feed them! Therefore this harmless pleasant "medical treatment" that Dr. Sers unfortunately approves of has led to a number of prisoners escaping altogether, although their colleagues were punished. Is this Dr. Sers's notion of even-handed British justice? It certainly is not mine.

But to continue. Of the rest, a large number—probably 40 to 50 per cent—were tortured by forcible feeding, and in a few days or weeks (the periods in the records before me vary from 45 hours to three to four weeks) they were at the end of an average of a week discharged in a state of collapse which made it too dangerous for the prison doctors to continue. Such was the efficacy of Dr. Sers's "medical treatment" that these prisoners also never served the sentences awarded them by the Courts. True, a small fraction, by reason of their youth and strength, endured the torture for the period fixed, and the resolution of a few broke down, as Mr. McKenna pleasantly observed in the House of Commons, under "the stress" of the threat of forcible feeding by the doctors. I gave Dr. Sers the opportunity of withdrawing his statement that forcible feeding is medical treatment, but I regret to note he persists in an error which, to me, is a gross libel on our profession, and which even the Home Office has abandoned.

Evidently he never reads the Hansard reports of debates on this subject. If he had I feel quite sure he would be one of the first to try and cleanse this foul stain from the reputation of our profession.

I am, Sir, yours truly,
VICTOR HORSLEY.

25, Cavendish Square, London,
September 6th, 1914.

REPORT OF THE SELECT COMMITTEE ON PATENT MEDICINES.

To the Editor of THE MEDICAL PRESS AND CIRCULAR.

SIR,—I am glad to see by the note appended to my former letter that you propose to deal fully with this Report in due course. There is also to be published at once the full report of the evidence. It is desirable that the whole profession should be completely put in possession of the whole story. Their aid may be needed, although I have never seen a report of the kind in which without dissent a whole committee of able men have made clear the necessity of legislation to put an end to evils which they denounce as "intolerable." We cannot expect the matter to be taken up until the stress of the war has been removed. If then the reforms called for are not brought to the front the pressure of the united profession must be brought to bear. The quality of the men composing the Select Commitee is enough to leave very little doubt, at any rate in my mind, that they mean to see the matter through, but the profession ought to be ready. The Report costs only threepence, without the separate volume of evidence, and it is to be hoped that every medical man will become possessed of one. Any bookseller can get them from the Government printers; and one shilling will produce three copies, including postage. It is a most interesting document—a most lucid exposure of a system of elaborate, cynical and cruel swindling on the one side (it is so characterised by the Report) and of incredible gullibility on the other. It is evident that had a request been pressed for inclusion in the inquiry of quack practice it would probably have been granted. The Report shows how this nefarious trade is bound up with the sale of bogus cures of all kinds. To this the Committee refers. It points out that the sum it estimates as spent by the nostrum mongers in advertisements "does not include that of swindlers like Macaura, the eye quacks, the deaf quacks, the cancer curers, the consumption curers, the electric belt makers, the curers of rupture without operation or *fakirs* generally." Based on the evidence in this present report, we must now formulate a demand for a Select Committee on the latter question. I have always held, and this report confirms my view, that the grosser evils of quackery could all be put an end to by amendment and improvement of common law. Quackery of all kinds is a systematic process of getting money under false pretences. The simple alterations in the law suggested by the Committee will put an end to this. If a man can be punished for selling margarine as butter, he can be more severely punished for selling coloured paraffin as a cure for cancer; and if an unqualified man may be easily prevented from practising as a solicitor under the remotest false pretence, there can be no difficulty in preventing uneducated, fraudulent quacks not only from practising, but from effectually palming themselves off on the public as legally qualified medical men.

I am, Sir, yours truly,
HENRY SEWILL.

The Old Rosery, Earlswood Common,
September 4th.

REVIEWS OF BOOKS.

DISEASES OF THE RECTUM AND ANUS.(a)

THE importance of diseases of the rectum and anus is well borne out by the statement in the author's preface that 50 per cent. of the population suffer from rectal ailments during some time of their lives. Mr. Lockhart-Mummery has written a readable and practical work which will be of great service to all engaged in the treatment of patients suffering from such affections. The book represents the work of the author at St. Mark's Hospital and in private practice, and is full of valuable information. The author knocks the bottom out of several established ideas and gives good grounds for his rejection of them. For instance, he shows that the so-called ribbon-shaped motion is of no significance in the diagnosis of cancer of the rectum in the ordinary situation; that it is not necessary to divide the sphincter ani to obtain healing of a fistula; that syphilitic disease of the rectum is a rare disease; and that it is possible to render the rectum as aseptic as other more favoured portions of the anatomy. He draws attention to the importance of accurate diagnosis in cases of alleged piles. Every surgeon has seen lamentable instances of malignant disease of the rectum treated as hæmorrhoids when a simple examination would have disclosed the real state of affairs. He devotes a special chapter to anæsthesia in rectal operations, but, we think, does not attach enough importance to local anæsthesia or anoci-association. The chapter on fistula is particularly good and the causes of the unsatisfactory results frequently occurring after operation are well explained. We would recommend every surgeon who attempts the treatment of this condition to glance over this chapter. He will find many valuable hints which will help him to avoid, among other things, that distressing condition, incontinence of fæces, which too often follows and brings discredit on operations for the cure of this complaint. A chapter is devoted to stretching of the sphincter ani, and the statement is made that five minutes are required to obtain complete relaxation of the sphincters, and that in a strong man it may take ten minutes. How often does the ordinary operator devote this time to this part of the operation? The operation for piles ascribed to Earle was, we believe, first described by Mitchell. We agree with the author that Whitehead's operation for piles is not necessary in most cases, and that a simpler procedure is usually sufficient. There are a few printer's errors and the illustrations are somewhat crude, but these are small matters in a book of such general excellence. We heartily recommend this book as a sound summary of the best practice in this department of surgery.

(a) "Diseases of the Rectum and Anus." By P. Lockhart-Mummery, F.R.C.S.Eng., Surgeon to St. Mark's Hospital for Diseases of the Rectum. Pp. 34[illegible]. London: Bailliere, Tindall and Cox. 1914. Price 7s. 6d.

LITERARY NOTES.

Messrs. Bailliere, Tindall and Cox announce that a ninth edition of that important work for students, Rose and Carless' "Manual of Surgery," with 10 coloured plates and 620 illustrations, will be ready in time for the winter session. It is sixteen years since the publication of the first edition of this work, and so world-famous has it become that 20 editions and reprints have been necessary in that period. A seventh edition of Prof. Stewart's "Manual of Physiology" is also promised from the press of the same firm. In the new edition Prof. Stewart has replaced a large number of the old figures and added some fresh ones. He has made a thorough revision, and has greatly improved the book by splitting up the chapters into distinct sections, in order to assist both teacher and student.

* * *

At the present time there is a great demand for manuals of first-aid and ambulance. A convenient little booklet, suitable for the pocket or wallet, is J. F. Sutherland's "First Aid," the 38th edition, revised and enlarged, of which has been edited by Dr. Halliday Sutherland. Within the small compass of 45 pages are packed away an immense amount of useful information, covering the whole ground of first-aid to the injured and sick. The price is only threepence, and the publisher is Mr. S. G. Madgwick, 26, Ivy Lane, E.C.

MEDICAL NEWS IN BRIEF.

The National University of Ireland.

The Senate met on Tuesday, September 1st, and had under consideration the reports of the Examiners upon the special examination for the M.B., B.Ch., B.A.O. degrees recently held by the University in view of the present national crisis for the purpose of facilitating the immediate entry of successful candidates for medical service in the Navy or in the Army, and agreed to award the following passes and honours:—

Special M.B., B.Ch., B.A.O., Degrees Examination, 1914.—The following are the results of the examination held in University College, Dublin, for students of University Colleges, Dublin, Cork and Galway.

Students of University College, Dublin.—First Class Honours: John A. Pierse.

Second Class Honours: John B. Minch and Michael McKeever, B.A.

Pass: Patrick J. Corcoran, Bernard T. Cullen, John P. Huban, Francis de C. Keogh, Alphonsus McGrath, James V. McNally, Oswald J. Murphy.

Students of University College, Cork.—First Class Honours: John Kennedy, Thomas F. Kennedy, Vernon O'Hea-Cussen.

Pass: Wilfred Dixon, Jeremiah J. Magner, Patrick G. Murphy-O'Connor, Thomas F. Ryan, Michael V. Sexton.

The following candidate has been exempted from further examination in medicine, ophthalmology and midwifery: Thomas H. Richardson, University College, Cork.

The Senate adopted a resolution that a public notice should be issued to the effect that the University will arrange, as far as it may be possible to do so under the Statutes of the University, that any student of the University who may be employed in the service of the Crown during the war shall not be prejudiced in any way in his University course on account of such service.

Munificent Gift for Medical Research.

At a meeting of the Governors of the London Hospital last week, it was reported that a gift of £20,000 had been promised by Mrs. Paterson for cardiac research work.

Society of Apothecaries of London.

The following is a list of candidates who, having passed the necessary examinations during August and September, have been granted the L.S.A. diploma, entitling them to practise Medicine, surgery, and midwifery:—D. Aucutt, H. Dudley, R. J. Hearn, A. R. Jennings, W. M. Lansdale, R. H. Leigh, G. D. Newton, L. E. Pimm, R. V. Powell, and C. J. B. Way.

The Royal College of Surgeons, Edinburgh, announces that the South African College, Cape Town, is now recognised as a school of anatomy and physiology for the courses required for admission to the second examination of the Conjoint Board of the Royal Colleges of Physicians and Surgeons.

MEDICAL WAR ITEMS.

War Risks.—The following resolution has been passed at a special meeting of the Executive Committee of the Medical Sickness, Annuity and Life Assurance Friendly Society:—"Any member serving with His Majesty's forces on active service abroad shall be allowed to retain his membership without extra premium and shall, on return to the United Kingdom, come into sickness and accident benefit. Any member serving with His Majesty's forces while in the United Kingdom shall be held fully covered for sickness and accidents without extra premium. Any member insured for life assurance serving with His Majesty's forces either abroad or in the United Kingdom shall not be charged any extra premium and shall be held fully covered."

Birmingham medical men have circularised the patients of local doctors called to the front, offering medical attention on their behalf, and exhorting them to keep faithfully to their particular doctor on his return.

The ready offer of hospitals has made it unnecessary—except in one or two cases—for the authorities to utilise buildings which are not already adapted as hospitals. The Yarrow Convalescent Home at Broadstairs is one of the few buildings which are being converted. Where such buildings are being used the necessary alterations are being made.

At a meeting of the Council of the National Medical Union on Saturday last, September 5th, the following resolution was passed:—"That the Council of the National Medical Union is prepared to submit a list of its members who are willing to place their services in various capacities in their districts at the disposal of the War Office."

NOTICES TO CORRESPONDENTS, &c.

☞ Correspondents requiring a reply in this column are particularly requested to make use of a *Distinctive Signature* or *Initial*, and to avoid the practice of signing themselves "Reader," "Subscriber," "Old Subscriber," etc. Much confusion will be spared by attention to this rule.

SUBSCRIPTIONS.

Subscriptions may commence at any date, but the two volumes each year begin on January 1st and July 1st respectively. Terms per annum, 21s: post free at home or abroad.

Foreign subscriptions must be paid in advance. For India, Messrs. Thacker, Spink and Co., of Calcutta, are our officially-appointed agents. Indian subscriptions are Rs. 15.12. Messrs. Dawson and Sons are our special agents for Canada. For South Africa, The Record Publishing Co., Cape Town. Messrs. Geo. Robertson and Co., of Sydney and Melbourne, are our special agents for Australia.

ADVERTISEMENTS.

For One Insertion:—Whole Page, £5; Half Page, £2 10s.; Quarter Page, £1 5s.; One-eighth, 12s. 6d.

The following reductions are made for a series:—Whole Page, 13 insertions at £3 10s.; 26 at £3 3s.; 52 insertions at £3, and pro rata for smaller spaces.

Small announcements of Practices, Assistancies, Vacancies, Books, etc.—Seven lines or under (70 words), 4s. 6d. per insertion: 6d. per line beyond.

Contributors are kindly requested to send their communications, if resident in England or the Colonies, to the Editor at the London office, 8, Henrietta Street, Strand; if resident in Ireland to the Dublin office, in order to save time in reforwarding from office to office. When sending subscriptions the same rule applies as to office; these should be addressed to the Publisher.

Original Articles or Letters intended for publication should be written on one side of the paper only and must be authenticated with the name and address of the writer, not necessarily for publication, but as evidence of identity.

Reprints.—Reprints of articles appearing in this Journal can be had at a reduced rate, providing authors give notice to the publisher or printer before the type has been distributed. This should be done when returning proofs.

C. H. S. (Brighton).—Letter received, contents noted and sent to Shrewsbury.

M.R.C.P. (Liverpool).—We should have been glad to give space to your letter, but we do not see that it applies to the argument it is intended to refute. As we understand you desire to raise a point of importance to a certain class of practitioners, it will afford us pleasure to give you space for this purpose if desired.

NOTICE TO HOSPITAL SECRETARIES AND COLLEGE DEANS.

The Editor wishes to thank the above gentlemen attached to the various Schools and Hospitals for supplying him with the information from which the foregoing pages have been composed.

NOTICE TO OUR READERS.

As this number is mainly devoted to information necessary for students intending to join one or other of the various medical colleges and for those who, having passed their curriculum, are about to enter the ranks of the profession, much of the ordinary matter which usually fills our columns is necessarily deferred till next week.

GRATUITOUS COPIES.

A very large number of copies of this issue are being sent gratuitously to all the educational establishments, hospitals, reading-rooms, clubs and large hotels in the United Kingdom, and to a large number in America, India, the Colonies and on the Continent; should any of our readers desire to present a copy to a patient or friend who contemplates sending his son to a medical school, our publisher will be happy to supply him with a duplicate free of cost on receipt of address.

D. J. Watson.—Thallium acetate may be used with safety for the removal of downy hairs upon the upper lip which are unsuitable for electrolysis. Sabouraud gives the following formula:—R Thallium acetate 0.30 gram, zinc oxide 2 grm., vaseline 20 grm., lanolin 5 grm., rose-water 5 grm. The action of this salve is slow and progressive.

Vacancies.

Royal Albert Hospital, Devonport.—House Surgeon. Salary £150 per annum, with board and laundry. Applications to the Chairman of the Selection Committee.

Hulme Dispensary, Dale Street, Stretford Road, Manchester.—House Surgeon duly registered and fully qualified. Salary £180 per annum. Annual increase £10 to £200, with apartments, attendance, coal, and gas. Applications, with testimonials, at once to Honorary Medical Secretary. (See advt.)

Manchester Northern Hospital for Women and Children, Park Place, Cheetham Hill Road.—House Surgeon. Salary £120 per annum, with apartments and board. Applications to Mr. Hubert Teague, Secretary, 38 Barton Arcade, Manchester.

Nottingham General Hospital.—Senior House Physician. Salary £120 per annum, with board, residence, and laundry in the Hospital. Applications to the Secretary.

Horton Infirmary, Banbury.—House Surgeon. Salary £120 per annum, with board and residence in the Infirmary. Applications to E. Lamley Fisher, Hon. Sec., Horton Infirmary, Banbury.

Sherburn Hospital, near Durham.—Medical Officer. Salary £300 per annum, and house. Applications to Henry Jepson, Durham.

Rotherham Hospital.—Assistant House Surgeon. Salary £110 per annum, with board, lodging, and washing. Applications to the Secretary, G. W. Roberts, 8 Moorgate Street, Rotherham.

The University of Sheffield, Department of Pathology.—Junior Demonstrator in Pathology. Salary £200 per annum. Applications to W. M. Gibbons, Registrar.

Nottingham City Asylum.—Junior Assistant Medical Officer. Salary £200 per annum, with board, apartments, and laundry. Applications to the Medical Superintendent.

The University of Liverpool.—Faculty of Medicine.—Johnston Chair of Bio-Chemistry. Salary £600 per annum. Applications to Edward Carey, Registrar.

Certifying Factory Surgeon.—The Chief Inspector of Factories announces the following vacant appointment:—Ballyhaise (Cavan).

Appointments.

Bond, C. Shaw, M.B., B.C., M.R.C.S., L.R.C.P.Lond., Medical Officer and Public Vaccinator for the Braushott (Hampshire) District.

Gowland, William Percy, F.R.C.S.Eng., to the Chair of Anatomy at the University of Otago, Dunedin, New Zealand.

Little, H. N., B.C.Cantab., L.R.C.P.Lond., M.R.C.S., Certifying Surgeon under the Factory and Workshop Acts for the Dunstable District of the county of Bedford

Matheson, J., M.B., C.M., Aberd., Certifying Surgeon under the Factory and Workshop Acts for the Greenwich District of the county of London.

Salisbury, Walter, M.B., B.S.Lond., Assistant Resident Medical Officer at the Queen Charlotte's Lying-in Hospital, Marylebone Road, N.W.

Wales, H., M.B., B.C.Cantab., Certifying Surgeon under the Factory and Workshop Acts for the Gargrave District of the county of York.

Births.

Earle.—On September 1st., at 15 Lypiatt Terrace, Cheltenham, the wife of P. M. Earle (British Guiana Medical Service)—a daughter.

Hewitt.—On August 27th, at 26 Bernard Gardens, Wimbledon, S.W., the wife of Fleet-Surgeon D. Walker Hewitt, F.R.C.S., R.N., of a daughter.

Lacey.—On Friday, August 28th, at 196, Burrage Road, Woolwich, the wife of B. Warner Lacey, M.B., of a son.

Rigby.—On September 1st, at 24 Queen Anne Street, W., to Mr. and Mrs. Hugh M. Rigby—a son.

Sykes.—On August 30th, at Ashhurst, Formby, Lancs., to Dr. and Mrs. A. Barry Sykes—a son.

Marriages.

Banks—Stobie.—On September 1st, at St. Giles' Cathedral, Edinburgh, Alexandra Gray Banks, M.D., F.R.C.S. (Edin.), Ipswich, to Evelyn Isobelle, daughter of the late William Stobie, Solicitor, Innerleithen. At Home St. Matthew's Lodge, Ipswich, October 21st and 22nd.

Browne—Billington.—On September 1st, at Parish Church, West Kirby, F. Guy Fountain Browne, M.B., younger son of the late Alfred Fountain Browne, Esq., and Mrs. Fountain Browne, of Oxton, to Andrina Katherine, eldest daughter of Mr. and Mrs. E. R. Billington, of West Kirby. At home, October 15th and 16th, No. 4 Hamilton Square, Birkenhead.

Chick-Lucas—Chevers.—On August 25th, at St. Mary's, Brading, James R. G. Chick-Lucas, M.R.C.S.Eng., L.M.S.S.A.Lond., of Bellevue, Brading, I.W., son of the late Dr. Reynolds Chick, of Hulme, Manchester, and grandson of Dr. James Robb, of Manchester, to Alinnora, youngest daughter of the late Norman Chevers, C.I.E., M.D., F.R.C.S.Eng., J.P., Dep.-Surgn.-General Bengal Army, granddaughter of Forbes Machean Chevers, Surgn., R.N.

Gillett—Potts.—On September 2nd, at the Parish Church, Cockington, Torquay, Aubrey Scott Gillett, M.R.C.S., L.R.C.P., youngest son of the Rev. E. A. Gillett, of St. Edwards, Islip, and Margaret, youngest daughter of John Potts, Esq., of Knap Hill, Woking.

Patey—Haslam.—On September 2nd, at Chelsfield Parish Church, Kent, Walter Patey, M.D., of Newton Abbot, Devonshire, youngest son of the late C. H. B. Patey, Esq., C.B., and of Mrs. Patey, of Newton Abbot, to Dorothy, daughter of the late Reverend F. Haslem, Vicar of Herne Hill, Faversham, Kent, and Mrs. Haslam, of Orpington, Kent.

Robertson—Seddon.—On September 1st at Painswick Church (quietly on account of the war), Dr. William Robertson, son of Andrew B. Robertson, of Kelvinside, Glasgow, to Dorothy, second daughter of the Rev. W. H. Seddon.

Sharpe—Rooney.—On September 2nd, at the Church of Our Lady of Victories, Kensington, Dr. Frederick George Sharpe, A.M.C., son of the late Dr. James Sharpe, of Dublin, to Margaret Mary, elder daughter of Mr. and Mrs. J. A. Rooney, of St. Mary Abbott's Terrace, Kensington.

Vivian—Boveington.—On September 3rd, at the Parish Church, Enfield, Harold Sugden Vivian, M.B., B.S.Lond., Winchmore Hill, Middlesex, to Alice Winifred, daughter of Frederick Boveington, Esq., 261 High Road, Lee, Kent.

Wilkinson—Rudkin.—On August 31st, at St. Peter's Quamichan, John Helby Wilkinson, M.R.C.S., L.R.C.P., eldest son of Rev. Samuel Wilkinson, of Brentwood, Essex, to Muriel, third daughter of Arthur J. Rudkin, of Quamichan, Lake Duncan, Vancouver Island. (By Cable)

Deaths.

Denziloe.—On September 3rd, at Felixstowe, William Le Groa Denziloe, M.D., son of the late Dr. Matthew Denziloe, of Bridport, Dorset, aged 72.

Hicks.—On Sunday, August 30th, at 149 Amhurst Road, N.E., Dr. George Borlase Hicks, in his 87th year.

Reid.—On August 25th, at 135 Victoria Road North, Southsea, Dr. Stuart Bathgate Reid, M.A., late of the East London Hospital for Children, Shadwell, aged 43.

HULME DISPENSARY.

DALE STREET, STRETFORD ROAD, MANCHESTER.

WANTED a HOUSE SURGEON duly registered and fully qualified. Salary £180 per annum. Annual increase £10 to £200, with apartments, coal and gas. Applications, with testimonials, at once to Honorary Medical Secretary

THE MEDICAL PRESS AND CIRCULAR.

"SALUS POPULI SUPREMA LEX"

VOL. CXLIX. WEDNESDAY, SEPTEMBER 16, 1914. No 12.

NOTES AND COMMENTS.

Medical Heroism at the Front. AMONG the many unrecorded deeds of gallantry under fire must be mentioned the heroic and self-sacrificing acts unremittingly performed by medical officers serving under the Red Cross. One of the most ghastly features of the present war is the manner in which this emblem, sacred to the cause of humanity, is honoured, or rather dishonoured, by the enemy. In consequence of these repeated acts of outrage the work of the Red Cross men has been rendered doubly hazardous, and many noble deeds performed in the face of such increased risks will never see the light of day in cold print or be mentioned in dispatches. They are all inscribed, however, by the recording angel in imperishable characters upon his eternal scroll. It is reported that on August 25th, when Louvain was razed to the ground, Dr. Noyons, Principal of the Medical Faculty of the University of Louvain, was about to visit one of his servants in the hospital, who had been shot in three places. At this time the famous library was already burnt out. He attended to the girl's wounds and hurried back to his residence, only to find it in flames, despite the fact that a large Red Cross flag was flying over it, and that a notice was upon the door to say that a Dutch medical man lived there. The professor and his wife remained in the cellars of the hospital to attend to the physical needs of some 150 wounded patients, and did what they could to relieve the sufferings of the distracted townsfolk. All honour to the men who love not their lives unto the death, and who remain faithful to their posts as ministers of healing.

Fees for Examination of Recruits. IN the provinces recruits for the new armies are in some instances being examined by local civilian practitioners. A small fee, half-a-crown, is paid by the War Office for each examination. Considering the amount of skilled service and the necessity for rigid asepsis the rate of remuneration does not err on the side of extravagance, and a private patient would very properly be expected to pay a much larger fee. The public, however, has acquired a rooted belief that medical service should be obtainable either free or for a ridiculously small sum. In various Yorkshire newspapers an objection has been raised to the amounts paid to local medical men for the examination of recruits. In one instance a correspondent writing under signature "F.R.C.S.," states that he devotes two hours daily—all the time he can spare—to this duty, in return for which he receives ten shillings. On the other hand, he points out that medical men will be hard hit by the war, owing to the number of bills that will remain unpaid. That fact should be appreciated by the Government in their dealings with the medical profession. It would, indeed, be a bad stroke of political economy to foster conditions that tend to reduce the efficiency of the medical service of the nation.

Abundant Help Forthcoming. THE importance of anti-typhoid inoculation has been pretty widely recognised not only by the medical profession, but also by the War Office and the public at large. Statistics apparently prove beyond doubt that the incidence and mortality rates are thereby reduced, not to mention the detection of that most dangerous of camp inmates, the typhoid carrier. From a public health point of view it is highly desirable to exclude as far as possible the introduction of enteric fever by soldiers on their return from the war. There is no need, however, to labour the point. Prophylactic inoculation against typhoid fever is a scientific precaution of great value, and should be administered to all British troops who join our armies in the field or, so far as that goes, who are placed in camps at home. The difficulty of the Army Medical Department will be to find medical men to administer the typhoid vaccine, a little operation that requires skill and experience. In Scotland the Royal Colleges have placed their laboratories at the disposal of the War Office. In London the Army Medical Service could secure ample help of the kind in some of the first-rate clinical laboratories attached to various large and small hospitals. Some of the larger hospitals are depleted of staffs and overburdened with wounded soldiers, but more than one small special hospital we could mention would be able to administer, if necessary, several hundreds of typhoid inoculations daily. The attention of Sir Launcelot Gubbins, Director-General of the Army Medical Department may be drawn to this matter. An offer to do this particular work has been made by a well-known professional association, which, if we mistake not, has been organised and supported for very different purposes.

Books and the Man. THE majority of medical and scientific books differ somewhat from many works of general literature in that the former tend to serve the needs of a given generation of students. We prize and regard with reverence the weighty tomes and works of reference produced by the great medical teachers of half a century ago, but they do not figure upon the list of books recommended for candidates for present-day examinations. Some textbooks, indeed, are fortunate enough to run through a large number of editions and are ousted from their place only with great difficulty by the insistent claims of some pushing rival. The shelves of the second-hand bookshops bear abundant testimony to the comparatively short life of the average medical work. And so it must ever be in the case of such a progressive science as that of medicine, fresh discoveries in which spring to light with startling rapidity. It may seem perplexing, therefore, to the tyro to know what books he ought to purchase at the outset of the career. The student will do well to be guided in this all-important matter by his teachers and lecturers and only to purchase those textbooks that will be of immediate use. As he proceeds further in his medical studies his library will, of necessity, increase. Broadly speaking, it may be said that the aspirant after a medical degree at one of the Universities will require to spend more upon books than he who is bent upon obtaining a diploma from one of the colleges or corporations authorised to grant such. In his last year or two the senior student will need to supplement his textbooks by reading original papers in the medical journals. Finally, it should be remembered that the most successful practitioner is he who has the broadest outlook, therefore, care should be taken to supply all the mental faculties with that *pabulum* which can only be obtained by a liberal course of general reading.

The Importance of Physical Training.

THE alleged inferiority of the modern athlete is the keynote of a communication from the pen of Sir Lauder Brunton to the *Times Educational Supplement*. In the absence of comprehensive statistics dealing with the physical measurements of ancient as well as modern athletes it is not easy to judge with scientific precision whether the degeneration of limb, so loudly complained of by alarmist writers, is a real cause for national searching of heart. There does not appear to be any lack of the true spirit of sportsmanship, so far as physical contests are concerned, but it is just open to question if sufficient attention has been paid in this country to regular, systematic training in physical exercises. Each of the great national games and sports exercises certain but seldom the whole of the muscles of the body, whereas Swedish drill, intelligently persevered in during childhood and youth, would go far to remove any reproach that may be hurled, rightly or wrongly, against the athletic side of our present educational system. The establishment of chairs of physical training in the Universities of this country, after the manner of that already existing in the University of Pennsylvania, as well as the introduction of sports masters in every school who would be directly responsible for all physical training, have been suggested as being among the most practical means of improving the muscular fitness of the nation at large.

Anæsthetics and Unqualified Practice.

THE administration of anæsthetics by medically unqualified or unregistered persons is an obvious danger to the public. The safe administration of anæsthetics demands a combination of technical skill and knowledge that cannot reasonably be looked for apart from a thorough medical training. There is, of course, an unavoidable margin of deaths that must occur during anæsthesia, just as there must be, say, in a given fever, such as malaria or measles, or in the operation of ovariotomy, even when the patient is placed under the best modern conditions. Those deaths, however, represent the minimum, and the number rises rapidly as the conditions are relaxed owing to the lesser competence or resources of the medical men concerned. A comparison, for instance, of the deaths under anæsthesia at two of the largest hospitals in the kingdom revealed a startling difference in results. A change in administration methods of the less favourably distinguished institution brought about a remarkable diminution of this most distressing form of fatality. These facts prove, first, that to a certain extent anæsthetic deaths are avoidable, and, secondly, that special training and experiences are needed to produce really competent anæsthetists, even amongst qualified medical men. It goes without saying that in the hands of medically untrained and unqualified persons the administration risks attending the anæsthetics would be greatly multiplied. To permit such irregular practice is illogical on the part of a State that demands a rigid course of special study and testing by repeated examinations before any person is granted a legal qualification to practice medicine or surgery.

Slow Government Action.

IT seems, indeed, a self-evident fact that the promiscuous administration of anæsthetics must constitute a grave public danger. The need of legislation on the subject has been urged upon the Government times out of number with the full weight of professional authority. The General Medical Council, for instance, and the British Medical Council have submitted formal recommendations, to say nothing about those of the Departmental Committee of the Home Office, which had the matter under consideration four years ago. In the matter of medical reform, however, Parliamen has always been slow to act. Four hundred years ago Henry VIII. laid a sound foundation for dealing with the evils of unskilled medical practice by instituting legal medical qualification. It forms a curious commentary upon the Anglo-Saxon character that centuries later quackery of all kinds should be rampant in the United Kingdom, whereby the most ignorant and greedy quack is practically free to enrich himself at the cost of the health and the lives of our fellow-citizens—that is to say, if he exercise the small amount of caution needed to keep within the four corners of the law. On the other hand, the medical man who has, with considerable expenditure of money and labour, secured a State medical qualification, finds himself subject to all sorts of pains and penalties should he offend not only against various written and unwritten laws of his profession but also against the general moral and penal laws of society. In view of the peculiar conditions of medical practice it is right and proper that a high ethical code should be enforced. But what about the topsey-turveydom of a system that protects society so sternly against the lapses of the qualified practitioner but leaves it completely at the mercy of the cancer-curer, the bone-setter, the venereal quack, he vendor of worthless nostrums and the rest of the crew of parasites who flood the world with their lying advertisements?

The Medical Roll of Honour.

SINCE the date of our last issue the list of British losses in the war have steadily mounted until it has reached a total of 18,729 (on the evening of September 13th). Additional names are those of :—Killed : Capt. A. S. Williams, R.A.M.C. Wounded : Capt. McConaghy, R.A.M.C., Lieut. W. K. Morrison, R.A.M.C., Capt. C. W. Holden, R.A.M.C. Missing : Capt. P. O. P. Davy, R.A.M.C., Lieut. E. Davies, R.A.M.C., Capt. H. C. Hildreth, R.A.M.C., Capt.

A. D. O'Carroll, R.A.M.C., Capt. G. H. Rees, R.A.M.C., Lieut. H. J. S. Shields, R.A.M.C., Capt. M. Sinclair, R.A.M.C., Capt. W. G. Smales, R.A.M.C., Capt. A. C. Vidal, R.A.M.C., Capt. T. W. Browne, R.A.M.C. (reported in earlier list as Capt. G. H. J. Brown), Lieut. H. C. D. Rankin, R.A.M.C.; and in the Royal Navy, seriously wounded, Staff Surgeon Thomas Aubrey Smythe *(Pathfinder)*.

LEADING ARTICLES.

THE REPORT ON PATENT MEDICINES.

At the present moment public attention is engrossed by the terrible war which is devastating the Continent of Europe. Matters of social moment accordingly pass by unnoticed amid the stress and anxiety of the Titanic conflict that has been thrust upon the people of the United Kingdom. At such a juncture, then, the recently issued Report of the Select Committee of the House of Commons upon Patent Medicines is not likely for some time to come to secure that amount of publicity and interest which is warranted by its outstanding importance. It is, of course, impossible to discuss a document of this kind within the limits of a brief article, but readers will find its salient results elsewhere in our columns in the shape of the findings and the conclusions of the Select Committee. Readers will observe generally that it clears the ground for the long delayed reform of an evil that strikes deep into the roots of social well-being, inasmuch as the evil type of proprietary nostrum damages its victims in pocket, in health, and, above all, in the inducement to substitute worthless in place of skilled treatment. The Committee carefully ranges patent proprietary medicines into non-secret and secret remedies. The non-secret include genuine and valuable drugs, such as adrenalin and urotropine; and others that owe their attractiveness to skilful combinations, or to the use of an excipient that may be itself secret. Secret remedies, on the other hand, include simple medicinal substances that may be harmless except in their misleading claims to curative virtues, or they may contain dangerous drugs, or be simply fraudulent, which, in the words of the Report, "are, and are known to the makers to be, cruel frauds: and the sale and advertisement of them should be prohibited under drastic penalties." From this passage readers will gather that the Report is of an outspoken nature calculated to secure the approval of the root-and-branch reformer, and such indeed is the case. The survey of existing British law is not altogether satisfactory—the Committee deal simply with the Patent Medicine Acts of 1802, 1804, and 1812, and review the various laws whereby the fraudulent representation and other evils of the quack medicine trade might be restrained. It ignores the fact that there is a great mass of legislation dating from the days of Henry VIII., whereby summary powers were conferred upon the Royal College of Physicians of London and upon other bodies to seize and destroy false medicines and punish the vendors thereof. Much of this restrictive legislation is unrepealed, but possibly the Committee thought it wiser to refrain from a survey of laws that have fallen into desuetude. Among its emphatic findings, we note the following: "(6) That no Department of State and no public officer is charged with the duty of controlling the sale and advertisement of proprietary remedies in this country; that the Home Office and the Local Government Board are virtually powerless in this respect: that the Privy Council Office, though supposed to be specially concerned with the sale of drugs, has no initiative in the matter, and, in fact, it fulfils no useful function in this connection. (7) That the existing law is chaotic, and that successful prosecution for fraud in the advertisement and sale of secret remedies is fraught with the greatest difficulty, though the Public Prosecutor has perhaps not sufficiently tested the power of the existing law in respect to such cases. (8) That consequently the traffic in secret remedies, except as regards scheduled poisons and the grosser forms of impropriety is practically uncontrolled in this country." A similar firm handling is evident in the recommendation, which, if carried out, would practically put an end to one of the most nefarious forms of money-making that has hitherto defiled humanity's ceaseless struggle for existence. The Select Committee, at any rate, has done its best to expose and check the evil. The chairman, Sir Henry Norman, himself a distinguished journalist, has faced the question of newspaper advertisement, which is the breath of life to quackery, both fairly and squarely. Standing for the best traditions of British journalism, his remarks will no doubt have a due effect upon the latter day cynicism of the so-called "yellow press," which thrives on the weaknesses of mankind, and appraises all human effort from the single standpoint of material self-interest. The Report is specially welcome to the Medical Press and Circular, which, in season and out of season, has for more than two generations raised its voice in protest against the evils of quackery. It is a matter of inexpressible gratification to find our contentions more than supported by the formal finding of a governmental investigation. Our readers will doubtless join us in a devout wish that the labours of the Select Committee may be attended ere long by the fruition of legislative approval. The present century has witnessed various social changes of a far-reaching nature, a fact that renders one hopeful that the Report under notice may not share in the oblivion that has consigned many a similar document to the forgotten dust of our national archives. It will be our duty when the termination of the war affords more leisure for the consideration of social reforms to discuss in detail many of the principles, findings and recommendations of this admirable Report.

CURRENT TOPICS.

The Patent Medicine Report.

Now that the Report of the Select Committee on Patent Medicines is published, we wonder what notice will be taken of it in the daily Press. The Report contains twenty-eight pages, not including the evidence, and goes fully and fearlessly into the matter before the Committee, and for that reason we doubt whether the public will hear much about it. We know as well as anybody that a newspaper is not primarily out for philanthropy. A paper cannot live upon circulation alone, but needs every word that proceeds out of the mouth of the advertiser. That is the real difficulty. We saw it when the British Medical Association published "Secret Remedies." Most papers took no editorial notice of the book, and many journals, including some of the highest class, actually declined an advertisement relating to it. So, too, we hear very little through our ordinary channels of information about legal actions or caustic comments from the bench in cases affecting the largely-advertised proprietary frauds. Legislation is our only hope, and the influences that are brought to bear to avoid unpleasant publicity will be exerted to their fullest to scotch any effective bill. We need a crusade. Nowadays a crusade demands publicity for its success, and when our publicity manufacturers are against it the voice crying in the wilderness will seem still and small. We must keep on hammering away. We must never forego an opportunity of telling the truth about a patent medicine. Not with vague and abusive vapourings which may be imputed by the ignorant to competitive jealousy, but with cold facts relating to composition and price, that will appeal to the pocket of the prospective purchaser. No one will pay half-a-guinea for a couple of drachms of salt and sugar when he knows how he is being had. To ensure this we must take the trouble to learn something about these enemies to the public health. We study bacteria to defeat their machinations and we must do the same with the cure-all frauds.

Hoppickers and Hygiene.

The announcement that certain of the refugees from the Continent, who are daily arriving in this country, have been drafted into the hopfields, there to find employment, makes one pause for a moment to consider what provisions exists for looking after the health of this large body of workers. There was a time when the pickers were dumped down, as it were, in large numbers into a district with little or no regard for the needs of ordinary sanitation and decency. Private enterprise, so often the pioneer of official action, was not long in making the attempt to ameliorate the physical lot of hoppickers during the time of their harvesting operations. A further report by Dr. Reginald Farrar upon the lodging and accommodation of hoppickers has been recently issued by the Local Government Board. During the present season it seems more than likely that there will be a greater strain than ever upon the accommodation provided for the pickers, and increased inspection will certainly be necessary this year. It is suggested in the report that greater attention should be paid to the sanitary requirements of tents, special huts, and farm buildings utilised for housing the pickers. Privy accommodation suitably screened and protected should be provided in due proportion to the number of pickers. The water supply should be free from pollution, and, it might be added, such supply should be protected from contamination by the refuse and sewage of a hoppers' encampment. The special engagement of nurses and attendants to look after the young children in the camps would go far to reduce the sickness prevalent among infants. In any case the work of the Medical Officer of Health of the hopping districts is greatly increased at the present time, and when there is such a scarcity of medical assistance throughout the country more vigilance than ever will be needed in order to safeguard the interests of the hoppers themselves and also those of the community among which they have temporarily settled.

Between Two Stools.

Most of us have at some time or another met the man who is always dosing himself in vain efforts to preserve his sensory equilibrium. He first feels that he needs a stimulant and takes one; alcohol, strychnine, ammonia, or what not. Next he realises that he has rather overdone the trick, and he looks about for something to soothe his raw nerve-endings into some sort of comfort. We know this class of man, and find him hard to deal with. He has no settled policy about himself, and there is no outstanding feature of folly to which we can direct our attention. Our national mental state is at present rather like this man's. It is not our fault. Mr. Wells says it is the fault of what he calls the "official" or "expert" mind, and he instances the obviously poor recruiting posters that adorn our post-offices. The fact remains that we are called on to blow hot and cold with a most disturbing alternation. One week the cry is "carry on" and "business as usual," and the next we are called on in the name of King and country to leave our occupations whatever they may be and to join Lord Kitchener's army. We are all ready and anxious to do what is right, and we are ready to make any sacrifice that we may be called on to give, but we must be told what it is that we are really wanted to do. No man will rise up and leave his practice and his family if he is likely to be told the next week that he would have done better for the land he loves by sticking to his daily round. Doctors on the whole have little temptation to leave their work. Some businesses have almost gone by the board, but the doctor is as busy as ever. If we are wanted we are here and ready. We will trust our neighbours to do our work and to look after our interests till, and if, we return. But we need a charted way between the Scylla of shirking our duty to the country on the one hand and the Charybdis of carelessness of our future on the other. We know the Government has its hands full at present and we hate grousing, but if we do not say what we want we cannot expect to get it.

A Nation's Manhood.

"England considered no sacrifice too great to secure success in the important struggle in which she was engaged." Thus wrote F. de Bourriene in his "Life of Napoleon," with reference to the Peninsular War. That is how a Frenchman, Napoleon's private secretary, recognised the efforts being made by England to subdue the forces of his master. Almost a hundred years have passed, and now we find ourselves again in the throes of a similar struggle. The sacrifices of the past have become those of the present if England is once more to do her share in bringing to his knees an unprincipled usurper of the rights and liberties of the nations of modern Europe. But is England, as a nation, doing her best in the struggle before her? If so, how is it that many thousands of her sons, physically fit and capable, withhold themselves from enlistment? How is it that Lord Kitchener should have to plead so earnestly for the recruits of which he is in need? Repeatedly he has affirmed that he wants every man that he can get. The Government have endorsed his appeal, and yet in the crisis in which this country is involved, the young manhood of the nation is not ashamed to continue the pursuit of pleasure, ignoring their duty. That heritage which the Empire now enjoys through the sacrifices of our ancestors is a sacred trust. We must support, maintain, and protect it, whatever the cost, unsullied, not only for ourselves but for those who succeed us.

The Philosophy of the War.

One of the most interesting occupations we can give ourselves is the tracing of tendencies. In the present war when our sensoria are daily swamped by sensational but unimportant details of outpost engagements and survivors' stories, it is a cooling change to rummage in the dusty past in our efforts to find a thread to lead us from some dim beginning through misty means to the crystalline calamity that now confronts us. There are people who attribute the war directly to Nietzsche's influence on the German people. It would give the supposition a greater appearance of probability if the attribution were made to the influence of what Nietzsche is popularly supposed to have taught. The inventor of the Superman is usually credited with having taught a ruthless individualism and a brutality fully justified by the mere fact of its own existence, and because he was unfortunate enough to end his days in a madhouse, and to be the author of mystifying and unconventional phrases like "I should only believe in a God that would know how to dance," he is generally supposed to have reached his apotheosis in the German military aristocrat of the present day. Of course, such a view is unjust. The exhortation that he specially directed to the German people, with what must seem to us some sinister foreboding, was "to have fidelity, and for the sake of fidelity to risk honour and blood, even in evil and dangerous courses." This alone must check our assumption that the Teutonic policy is based on Nietzsche. Still, he was an individualist and this war was essentially undemocratic in inception. Whichever side we take reckless autocracy bears the responsibility. In even allegedly representative countries those in power must some day answer for their actions. The brake of the average opinion checks any thoughtless or contemptuous recklessness. We are not blind worshippers of Demos, but we see that pure individualism presupposes that the most powerful men are also the best, with which proposition we cannot agree. Matters affecting a whole people and which are comprehensible by the man-in-the-street must depend for their successful conclusion on his considered approval.

The Intravenous Injection of Mercury in Syphilis.

Now that salvarsan and neo-salvarsan will be practically unobtainable until such time as British chemists can be found to undertake its manufacture, we may well look around for other remedies for use in cases of syphilis. If we are compelled to fall back upon mercury we have the assurance that it is anything but a broken reed, in fact, it will probably remain the best anti-syphilitic drug for a long time to come. Those who have done their best persistently to discredit its efficiency will now be only too glad to avail themselves of its remedial action. At the same time, mercury needs to be administered with great care and not in a haphazard fashion. Some excellent results in the treatment of syphilis have been obtained by the intravenous injection of the bichloride of mercury by Drs. J. Kingsbury and Paul E. Bechet, of New York (*a*), in doses of one-sixth to one-third of a grain in distilled water, the amount of fluid injected rarely exceeding 12 c.c. The advantages claimed for the intravenous route are the immediate introduction of the curative agent into the circulating fluid, rapid therapeutic results, mathematical dosage, and an absence of pain. Too great concentration of the bichloride solution may give rise to some phlebitis, which should be avoided. The benzoate of mercury was also employed in a 1 per cent. solution, the dose being from 2 to 12 c.c., but it was inferior to the bichloride. The method is not recommended as a routine but for use in selected cases. There is now abundant room for a full trial of the new French substitute for neo-salvarsan, which is said to be more intensely fatal as regards the spirochætes of syphilis, although not quite so effectual as a tonic.

PERSONAL.

Deputy-General-Surgeon P. M. Andrewes, R.N. (retired), has been appointed to Portsmouth Dockyard.

Dr. C. Hastings Philp, M.P., B.C.Cantab., has been appointed Honorary Anæsthetist to the Herefordshire General Hospital.

Sir Arthur Chance has been appointed a member of the First Senate of the National University of Ireland in succession to the late Sir Christopher Nixon.

Professor David Waterston, M.D., of King's College, London, has been appointed Bute Professor of Anatomy at St. Andrews University, in succession to Professor Musgrove.

Dr. D. G. Thomson, Superintendent of the Norfolk County Asylum, delivered the Presidential Address on taking the office of President of the Medico-Psychological Association of Great Britain and Ireland.

The name of Lieut. J. C. MacBryan, the son of Dr. MacBryan, of Box, is in the list of wounded in the recent fighting at the Front. He left the 1st Somerset a year ago to enter the medical profession.

The Council of the University of Sheffield has decided to invite Dr. J. B. Leathes, F.R.S., at present Professor of Pathological Chemistry in the University of Toronto, to accept the Chair of Physiology rendered vacant by the acceptance of Professor J. S. Macdonald of the Chair of Physiology in the University of Liverpool.

The medical arrangements of the new Sheffield University and City Special Battalion have been organised by Dr. Scurfield and Dr. Forbes, and under the control of Mr. W. Swallow. The clerical arrangements were organised by political agents of both the Conservative and Liberal Parties—viz., Mr. J. C. Skinner and Mr. C. J. Preston, while Mr. A. E. Jameson acted as paymaster.

A base hospital for Leicestershire, containing 500 beds, has been organised within five weeks by adapting the Old County Asylum at Leicester for the purpose. The arrangements have been directed by Major L. K. Harrison, R.A.M.C., who is in command of the hospital, assisted by Major Wallace Henry and Quartermaster G. E. Barfield, with 100 men of the R.A.M.C. Corps and 90 nurses.

(*a*) *Journal American Medical Association.*

CLINICAL LECTURE

ON

LACHRYMAL OBSTRUCTION. (*a*)

By E. ARTHUR DORRELL, F.R.C.S.Eng.,

Assistant Surgeon, Royal Eye Hospital, Assistant Ophthalmic Surgeon, Prince of Wales' Hospital, etc.

Of all affections of the lachrymal apparatus obstruction of the lachrymal passages is the commonest, and is perhaps of all the diseases of the adnexa of the eye, among the most intractable to treatment. There are two reasons for this intractability, first, the patient neglects to come for treatment until the condition has become chronic, and secondly, the anatomic and physiological arrangements of the parts make it exceedingly difficult to effectually apply treatment.

I will recall to your minds some of the anatomical relations of the structures engaged in the drainage of the conjunctival sac. At the inner extremity of each lid, just at the inner border of the tarsus, there is a small papilla, upper and lower papilla lachrymale, surmounted by a minute opening, the punctum lachrymale. These puncta are applied to the surface of the eye-ball, in that area of the conjunctival sac known as the lacus lachrymalis. From these puncta, canaliculi lachrymales pass inwards behind the caruncle to the saccus lachrymalis, passing at first in a vertical direction for a short distance before turning sharply inwards. The lachrymal sac lies behind the internal palpebral ligament, in the fossa saccus lachrymalis formed in front by the nasal process of the superior maxillary bone, behind by the lachrymal bone. From the sac the lachrymal duct passes downwards, outwards and a little backwards, through the bony nasal duct to open into the inferior nasal fossa. The mucous membrane of the duct rests upon a submucous tissue containing a plexus of veins, any undue engorgement of which is sufficient to close the lumen of the duct. The mucous membrane is here and there thrown into folds, and one fold in particular, more marked than the rest, is found near the lower extremity and called Hasner's valve. The narrowest part of the duct is at the neck where it leaves the lachrymal sac and it is narrowed again at the opening into the nose. This opening is placed obliquely through the nasal mucous membrane.

The conduction of tears from the eye is carried out as follows: by the action of the orbicularis palpebrarum muscle during the movement of winking, the internal palpebral ligament is pulled forward, the lachrymal sac being adherent by its anterior wall to the ligament, the walls of the sac are separated from each other, this suction action draws the tears from the lacus lachrymalis through the canaliculi. But the lumen of the duct being greater than that of the canaliculi, it would be expected that the suction would expend itself in sucking air from the nose up the duct, but this is effectually prevented by the lower opening of the duct into the nose being placed obliquely and acting as a closing valve. Upon the cessation of winking the elasticity of the walls of the sac compress the contents. The contained fluid will pass by way of the least resistance, down the duct, its lumen being greater than that of the canaliculi.

Should an obstruction take place from any cause in the lachrymal duct, the result is that the tears are pent up in the lachrymal sac. They can be pressed back along the canaliculi into the conjunctival sac by pressure with the finger over the internal palpebral ligament. Should the tears remain long in the sac the secretion becomes turbid from the collection of epithelial débris, mucus, dust and foreign matter carried in from the conjunctiva. This turbid secretion increases and distends the sac and becomes the medium for the luxurious growth of bacteria and takes on the characters of muco-pus. The presence of the material in the sac leads to a catarrhal inflammation of the mucous membrane which still further aggravates the trouble.

This is the condition found in the majority of patients when first seen, and has probably been in existence many weeks and is known as chronic dacryocystitis.

There are times when a loss of continuity of the epithelium lining the lachrymal sac occurs, and infection of the mucous and sub-mucous tissues takes places leading to abscess formation. The abscess as a rule points over the sac but the pus may burrow outwards and downwards in the tissues of the lower lid and cheek. This condition, acute dacryocystitis, is always preceded by the chronic inflammation following obstruction. The treatment for this acute condition follows the ordinary rules of surgery for superficial abcesses.

The symptoms of chronic dacryocystitis are, first, epiphora, the tears being unable to enter the already full sac, flow over and wet the cheek; secondly, swelling, immediately internal to the eye, between the inner canthus and the side of the nose; thirdly, regurgitation, muco-pus escaping from the puncta lachrymales upon pressing over the swelling.

After a variable time the catarrhal inflammation subsides and the purulent nature of the discharge ceases, the regurgitated fluid being mucoid only and finally clear.

The walls of the sac after a time become thickened, lose their elasticity from long continued distension, and pass into a condition of atony—the sac remaining distended with fluid even should the obstruction of the duct have been removed, a condition known as hydrops of the lachrymal sac.

Owing to the constant running over of the tears, the skin of the lids becomes eczematous, and should the epiphora last for a long time, contraction of the skin of the lower lid commences, and will lead to ectropion (turning outwards) of the eyelid, more or less severe.

(*a*) Delivered at the North-East London Post-Graduate College, January 13th, 1914.

The presence of a continual muco-purulent discharge is not only annoying to the patient but a danger to the eye, and is a frequent cause of severe corneal ulcers, and infection of wounds operative or accidental. Every slight erosion of the corneal epithelium, from a speck of dust, may be the starting point of severe inflammation.

The causes of dacryocystitis must be looked for in the obstruction of the nasal duct and infection from either the nose or the conjunctiva. The latter is far less common than the former, but will occur in cases of severe pneumococcal and streptococcal inflammation of the conjunctiva, especially where there is a formation of membrane, and particularly in these classes of cases affecting children. In the majority of cases there is a stricture of the nasal duct and in consequence the events above described follow in due course. This stricture is most frequently at the neck of the sac, less often at the lower end of the duct. It has its origin in some pathological condition of the nasal mucous membrane, conveyed to the mucous membrane of the duct such as chronic rhinitis, and ozæna is not unfrequently present in dacryocystitis. Ulceration of the nose, often tuberculous or syphilitic, is responsible for many cases, and tumours, particularly polypi, must be added.

The treatment of the condition and its success depends on the length of time it has been allowed to proceed; it is not often that an early case is met with· The discomfort of the continual discharge and often an attack of acute inflammation drives the patient to the surgeon.

If a case be seen early syringing out the sac frequently, with regular application of pressure over the sac to empty its contents, will bring back a healthy condition, provided that any obstruction of the duct has been removed. This may be done in slight strictures and early cases, by passing small medium-sized probes, after dilation of the canaliculus, without slitting the same. The dilation of the canaliculus should be done carefully until it will take a No. 3 conical probe, which should then be passed into the sac horizontally until its point rests against the inner wall of the fossa saccus lachrymalis and then, keeping its point applied to the inner wall, its direction should be changed to the direction of the duct, that is, downwards, outwards and a little backwards, which is well indicated on the surface by the line of the sulcus between the nose and the cheek. It is never wise to commence probing with the finer probes, as much injury may be done and false passages made if any force is used to overcome obstruction; frequently folds of mucous membrane are encountered in which the point of a small probe will be entangled but which present no difficulty to the larger sizes. It happens sometimes that, after probing successfully with fairly large probes, the fine nozzle of the syringe is with difficulty passed owing to bands and folds in the lining of the canal and has to be withdrawn again and again before its point can be induced to avoid the obstruction. Having passed a probe through the stricture and left it in a short time, the duct should be syringed through and if the whole duct is open, the fluid will pass into the throat. If this does not occur there is a second stricture below the first that the probe has not passed through, which must be dilated also. To ascertain that the probe has passed through the whole length of the duct and its point rests upon the floor of the nose, a second probe should be laid parallel with the first along the outside of the cheek, end to end, its lower end will indicate the position for the lower end of the probe in the duct, or the point of the probe may be looked for in the nose with the aid of a nasal speculum.

In the older cases the stricture will require lengthy treatment and large probes will have to be passed to counteract the tendency of the stricture, particularly if it is old and fibrous, to contract again. To admit large probes the canaliculus, the lower one, must be slit with a Weber's canaliculus knife. Probing should be done regularly, at least once a week and the size of the probes gradually increased at each sitting, until a No. 10 or 12 is through.

The treatment by probing has to be continued for many months, the patient attending, not infrequently, for a year or more.

When once the passage is free a few drops of 10 per cent. protargol or 15 per cent. argyrol may be applied after syringing.

Finally under certain conditions recourse must be had to operative interference of a radical kind. I refer to removal of the lachrymal sac. This operation may be undertaken for the following reasons: (1) For extensive contraction or obliteration of the duct; (2) where it is impossible to pass a probe or where the passage cannot be dilated beyond the capacity of the finest probes; (3) Where there are changes in the bones, often of a tuberculous or syphilitic nature; (4) in atony of the sac, the walls of the sac having lost all elasticity, and the conduction of tears failing even should an open duct be obtained; (5) similarly in hydrops of the sac; (6) in those patients who have not the time or inclination to undergo the lengthy treatment of probing; (7) and finally, before proceeding to perform any major operation upon the eye, especially preparatory to cataract extraction. No operation requiring a wound of the eye should be attempted if it can be avoided whilst pus can be regurgitated from the lachrymal sac, for it will assuredly end in panophthalmitis and loss of the eye.

After removal of the lachrymal sac it is not infrequently found that the patient makes no complaint of epiphora, though, of course the drainage passages have been obliterated, and the reason must be found in the small amount of tears secreted. As a matter of fact in normal quiet activity of the lachrymal gland, the amount secreted just suffices to replace that lost by evaporation. Should there be sufficient overflow of tears to cause discomfort, which cannot be kept in check by applications to the conjunctiva and the removal of all sources of irritation, removal of the accessory gland will have the desired effect. In doing this the ducts of the main gland, at least many of them, will be cut across, and the supply from the gland considerably reduced, the lachrymal secretion being supplied through the remaining ducts and by Krause's glands.

NOTE.—*A Clinical Lecture by a well-known teacher appears in each number of this Journal. The lecture for next week will be by A. H. Tubby, M.S.Lond., F.R.C.S., Surgeon, Westminster Hospital, etc. Subject: "The Treatment of Ankylosis by the Formation of New Joints."*

ORIGINAL PAPERS.

THE RESULTS OF RADICAL OPERATIVE TREATMENT OF CANCER OF THE UTERUS.

By THOMAS WILSON, M.D.Lond., F.R.C.S.Eng.,
Professor of Midwifery and Diseases of Women in the University of Birmingham.

In a short historical introduction, it was pointed out that in the early eighties, the different forms of amputation of the cervix enabled a five years' absolute cure to be effected in less than 2 per cent. of the cases of uterine cancer that applied for treatment. Vaginal hysterectomy increased the total curability to from 4 to 10 per cent.; the extended operation by way of the vagina, and the abdominal method popularised by Wertheim, have made possible a percentage operability of 45 to 60 per cent. and an absolute curability of 15 to 20 per cent., as claimed in some of the larger Continental clinics.

In this country the abdominal operation is becoming the routine method, because, in the first place, it affords better oversight of the field of operation than the vaginal method; in the second place, because operations by the vaginal route have never been extensively practised here, and thus skill is easier of attainment in a new operation if it is performed by the abdominal method; and thirdly, because only by the abdominal route is it possible to remove the affected glands. This last advantage is likely to prove of increasing value in the future. Many operators in their haste have concluded that it is useless to remove the glands, and have stated that when they are invaded the disease always recurs after operation. Wertheim has, however, published 14 cases in which carcinomatous glands were found, and which nevertheless remained free from recurrence for upwards of five years. For the reasons stated the abdominal operation is likely to become more and more generally adopted. It cannot, however, be applied to all cases. The prolonged Trendelenburg posture is dangerous for old patients, for those who are very fat, and for certain women with visceral complications. In such cases the vaginal operation affords a better immediate outlook, and in the old patients especially it is often followed by a long freedom from recurrence.

Difficulties of Estimating Results of Operations for Cancer.

The difficulties of estimating justly the results of any curative method of treatment of cancer are very great by reason of the uncertain course of the disease. In different patients the earliest symptoms make their appearance at very various stages of the disease. The duration of the disease is in the highest degree uncertain; of two women with the affection apparently in the same stage, one may die in a few weeks and the other live for several years. In the practice of the operating surgeon groups of cases, successful as regards ultimate cure, alternate with other groups apparently similar, but all ending in rapid recurrence. All which things tend to show that the actual living virus of cancer, when at length it is discovered, will be found to pass through varying phases of growth and activity, now active and virulent, now stationary or sluggish.

These uncertainties in the course of the disease have been illustrated, and to some extent explained, by the experiments on mouse cancer, where, also, marked variations are observed in the rate of proliferation of the cancer cells.

On the other side, marked differences exist in individual hosts as well as in the various organs and tissues of the body. In some organs and persons cancer appears to take root easily; it grows rapidly and soon becomes generalised. In some very early cases of uterine cancer the regional glands are already invaded; while in patients dead of the disease the glands are reported to be free in as many as 54 per cent. Relative immunity varying in degree resides in some organs and tissues, and in certain individuals. Not every person exposed to the causes of cancer, whatever these may be, develops the disease. Many are called, but few are chosen.

Here, then, are two factors which go far to explain the impossibility of forming an opinion on the course of the disease and on the probable result of operation in any individual case. Little that is definite is known of either of these factors, and we can only hope that patience and perseverance will eventually lead to their elucidation. In the meantime, the uncertainty and variability of the disease render it imperative that, in forming an opinion on the results of any method of treatment, observations shall be made on large numbers of cases and shall extend over a very considerable time. Averages are of use in comparing results in the mass, though they are of none in individual prognosis.

Standard for Comparison.

In estimating the risk of any new operation it has always to be borne in mind that, while there are dangers inherent in the operation, there are also dangers that appertain to the operator, and it would be just to exclude from the general consideration of the subject the first 10 or 20 cases of Wertheim's operation done by each individual surgeon.

In proportion as the operation for uterine cancer has become more extensive the demands as regards ultimate cure have become more exacting. At first, since the average duration of the disease from the onset of symptoms to the death of the patient was understood to be one and a half years, freedom from recurrence for two years after operation was a surgical triumph; then a term of three and later of five years' freedom was demanded. Latterly it has been suggested by Weibel among others, that the term should be extended to seven or more years, inasmuch as a certain number of patients show late recurrence. But art is long and time is fleeting, and the necessity is urgent of a convenient and sufficient standard to enable us to estimate and compare results. For this purpose five years would seem to answer all legitimate requirements, and it is to be desired that published results should conform to this standard.

Only those who have examined published writings with a view to find out what the operations for uterine cancer can fulfil, can appreciate the chaos and confusion that have arisen from every writer setting up his own standard. The literature of the subject is largely made up of attempts to estimate the value of the different operations by arithmetical methods which bristle with fallacies of every conceivable kind. All complicated formulæ are superfluous, and it appears to me a sufficient, and the only fairly reliable, estimate of results can be made by comparing the total number of cases of cancer that apply for treatment with the number known to be free from recurrence five years later. And even here there are many opportunities for error.

Another important observation that should be, but is not, superfluous must be made: that under no circumstances is it any longer justifiable to publish the mixed results of treatment of cancer of the body and of the cervix. The two varieties should be kept entirely distinct and separately discussed.

In the large German clinics we find that the cases of cancer of the uterine cervix afford a ratio of operability of 45 to 60 and even higher, and an absolute curability of 20 per cent. Wertheim's five-year completed statistics of 450 cases show an operable ratio of 46 per cent., with a primary mortality of 19.5 per cent., and an absolute curability of 19 per cent., 186 of 979 patients being known to be alive and free from recurrence at the end of five years.

In this country, with rare exceptions, the operability is not greater than from 30 to 40 per cent., and the total curability than 10 per cent. The low operable ratio is not due to any difference in the disease, but rather to the fact that the general public and the main body of the medical profession have not yet grasped the truth that uterine cancer is curable in a large proportion of those cases that apply early for treatment. The consequence of this ignorance is that women do not seek medical aid promptly, and that when they do the necessary investigation is only too often delayed.

The Surgery of Uterine Cancer in Great Britain.

Published papers in the British journals on the extended operation for uterine cancer have been comparatively few, and to a large extent made up of descriptions of *technique* with occasional suggestions for its improvement. There are no British five-year statistics.

My own work on uterine cancer has been done in the gynæcological department of the Birmingham General Hospital. I have taken all the cases applying for treatment in the out-patient department and all those admitted to the wards, and have added all my own private cases. My thanks are due to Miss M. B. Webb, M.D., whose very efficient and enthusiastic help in following up my results I here gratefully acknowledge.

From the year 1896 until December 31st, 1913, there have been 596 cases of uterine cancer. Of these, in 67 the disease affected the uterine body, and in order to clear the ground I deal with these first. Among the 67, 15 vaginal hysterectomies with no mortality, and 29 abdominal hysterectomies with 3 deaths, were performed. The five-year results are given in the accompanying table:

Cases of Cancer of the Uterine Body seen until June 30th, 1909.

Total cases seen	50
Radical operations	31=62%
Deaths following operation ..	2=6.4%
Cases free from recurrence for five years and upwards	12
Absolute curability	24%

The absolute curability of cancer of the body of the uterus here shown appears small when compared with the rate of 50 to 75 per cent. usually claimed, but I believe the latter rate is based largely on fallacies and small numbers, and will prove to be exaggerated.

Cervical Cancer.

Until the end of 1913, there were 529 cases of cancer of the cervix uteri. These can be conveniently divided into two groups according as operation by the vaginal or the abdominal route was the method of choice. In the first period, lasting until the end of 1905, there were 246 cases, of which 37 were operated upon by the vaginal method with 1 death, and 7 by the abdominal route with 6 deaths. In the second period, from January 1st, 1906, to December 31st, 1913, 283 cases were seen, among whom 20 were operated upon by the vaginal route with no deaths, and 72 by the abdominal with 8 deaths. The total immediate mortality of the vaginal method has been 57 cases with 1 death, or less than 2 per cent.; and of the abdominal, 79 operations with 14 deaths, or 17.7 per cent. The great majority of the abdominal hysterectomies were performed by Wertheim's method.

The ratio of operability has steadily increased; in the years 1896 to 1899 it was 14 per cent.; in the last four years it has been more than 36 per cent.

My total five-year results up to June 30th, 1909, have been investigated and show that, with an increased operable ratio and the adoption of the abdominal method of operation, the absolute curability of my cases has risen from 5.5 to 10.2 per cent.

Results of Vaginal Hysterectomy for Cancer of the Cervix to June 30th, 1909.	*Abdominal Hysterectomy for Cancer of the Cervix to June 30th, 1909.*
52 operations in 288 patients.	32 cases in 98 patients.
Average operability about 18%.	Operable ratio, 32.5%.
Death following operation, 1.	Deaths following operation, 9.
Patients survived five years and upwards, 16	Free for five years and upwards, 10.
Absolute curability, 5.5 per cent.	Absolute curability, 10.2 per cent.

Of the patients surviving operation, 16 of 51 = 31 per cent. of the vaginal, and 10 of 23 = 43 per cent. of the abdominal, remained well and free from recurrence for five years and upwards.

It follows from my experience that the final results are steadily improving and may be confidently expected still further so to do. The immediate mortality of the extended abdominal hysterectomy for cervical cancer has fallen; thus, in my own work, in the six years ending December 31st, 1913, there were 6 deaths in 62 operations, a rate of about 10 per cent. The operable ratio has doubled in the last ten years, and may be expected to rise considerably further when the possibilities of the operation are grasped by the profession at large and by the public. The total number of patients remaining free from recurrence for five years and upwards has also increased nearly twofold in the last decade, and we may hope before long with the surgical methods now at our disposal to achieve an absolute curability of 25 per cent. of all cases of cancer of the uterine cervix.

THE DRUG TREATMENT OF DYSMENORRHŒA. (*a*)

By J. C. M'Walter, M.A., M.D., LL.D., D.P.H.

If we take up any book on "Diseases of Women," and look at the chapter on dysmenorrhœa; dust out the platitudes, the theories, the traditional teachings, and the silly superstitions, and come down to the rock-bottom question, what does it teach me to do for the woman who is in recurrent pain, and who refuses to consider any operative measure? There are some vague mumblings about general hygiene, exercise, free bowels, suitable clothing—with suggestions as to a stay in bed, a hot water bottle, perhaps a little bromide of potassium or phenacetin, and a portentious warning against alcohol or morphia.

My friend, George Bernard Shaw, describes all professions—and especially the profession of medicine—as a conspiracy against the public. Probably he means that we are united for the purpose of enforcing fees for our services. Do we always give honest value for our fees? Does the gynæcologist give honest value to the mother when he warns her to give up the glass of toddy with which she generally relieves her daughter's dysmenorrhœa—and substitutes some coal tar compound? The gynæcologist promptly says yes—he prevents the girl from becoming an habitual toper; he claims to have saved her from a drunkard's grave, and he thinks his guinea is well earned thereby. Of course this is bosh. Carlyle to the contrary notwithstanding, the number of fools is not great—amongst the class of people who pay fees. What happens in practice is that the young woman, finding that the doctor's draught is not nearly so effective in curing her monthly pains as her accustomed glass of gin toddy, is forthwith filled with a fanatical faith in the virtues of alcohol.

Let me shock you—if obstetricians can be shocked. I believe that if alcohol or morphine cure dysmenorrhœa and if we know of no better drugs—then we ought to give alcohol or morphine. Nobody in this neurotic twentieth century has a right to be deprived of relief from pain—to be kept from that which will cure *tuto, cito et jucunde*—simply because there is a possibility of forming a bad habit. This argument, if faced honestly, would wipe, not only alcohol and morphine, but everything that makes life worth living, out of existence.

If alcohol be an effective remedy for amenorrhœa, you ought, I submit, to give alcohol without any cant about the fear of making the woman a secret tippler. Observe, I say you ought to give alcohol—that is a very different thing from telling your patient to take a stiff glass of punch, some hot port wine, or some gin whenever she has a monthly pain.

You remember that in our superior way we used to sneer at our predecessors, who ordered egg-flip as a prescription under the portentious title of mistura spiritus vini gallici, or who, when they wished to exhibit opium, prescribed a pill described as pilula saponis composita. They were simply wiser than we. They understood the psychology of the prescription. Thousands of women have been seduced into drinking habits by the knowledge of the potency of alcohol as an anodyne in amenorrhœa, and by their experience of its soothing effects in time of acute unrest, but had the physician been content to order the alcohol as a medicinal draught no such abuse would follow its use, and he would have the credit of devising a real cure for a troublesome ailment. Alcohol in amenorrhœa is made much more active by certain essential oils. In some cases the effect of those aromatic oils is simply carminative; in others they appear to have almost a specific effect on the apparatus for menstruation. A convenient form in which to administer these aromatics is the tincture carminativa of the codex. You prescribe about a drachm of this in a little hot water every three hours whilst pain exists.

So far I have simply made one point—namely, that the doctor, being satisfied that alcohol gives relief, shall prescribe it, not *sub nomine* but as an ordinary draught, whose composition is known only to the physician. This is by no means a minor point, for there is much difference between curetting a patient yourself and sending her a sharp-pointed curette with instructions how to do the job as there is between prescribing an alcoholic compound as a prescription and directing a patient to take some wine or whiskey herself.

Most of us will agree, I think, that morphine cures the pain of dysmenorrhœa. Most of us declare with horror against its use. I submit that the physician should not hesitate, as often as necessary, to administer it hypodermically himself, taking care to disguise its nature from the patient.

We ought to have a more extended armamentarium of drugs than alcohol and morphine. Next in the order of activity comes phenacetin. It is easily the best of the coal-tar compounds for dysmenorrhœa. Do not order it in tablet form, but in separate draughts made up with a little mucilage, carminative tincture, and essence of ginger. Do not give a timorous ten-grain dose, but boldly administer fifteen grains, at least, for the first dose, and repeat it as required. Phenazone is not as satisfactory in dysmenorrhœa as phenacetin, but may be used where the the patients object to the insoluble powder. Acetanilide is anathema with many pharmacologists, but in my opinion it is distinctly useful in the cases under discussion. It should not be prescribed alone, but in doses of about four grains, combined with eight of sodium bicarbonate and one grain of caffeine.

I need scarcely touch on the bromides; they have always been used in this disorder, and will always continue to be prescribed; but their tendency is, I think, to depress that excretory function which we often wish to augment in those subject to dysmenorrhœa.

Of the organic extracts, thyroid, parotid, ovarian and luteal, have been used. The best of these is thyroid. If there be no organic obstruction, such as stenosis of the cervix, and when the ovaries are sound the normal balance of metabolism seems to be restored and the amount and regularity of the flow to become improved. When the abdominal pain has been removed about 10 to 15 grains may be given daily for eight or ten days preceding the date of menstruation.

Belladonna relieves dysmenorrhœa best as a suppository—the B.P. belladonna suppository containing about 1½ grains of the extract is quite a potent preparation.

Many gynæcologists are inclined to deride

(*a*) Paper read at the Annual Meeting of the British Medical Association, Aberdeen, July 30th, 1914.

the use of external remedies for this ailment. Some external applications are of distinct value—by far the most active being oil of wintergreen.

It is not my business to discuss the theory of its action. It certainly gives extraordinary relief. It is best applied by painting freely a 30 per cent. solution of oil of gaulthery in almond oil over the affected quadrant of the abdomen every four hours. In more acute cases it may be used with rectified spirits of wine—2 parts to 1 of wintergreen covered with cotton wool. In certain cases about ten per cent. of menthol may be added. It is probable that external remedies are useless as antidotes except wintergreen, menthol, and, perhaps, cocaine.

Cocaine is clearly useful in dysmenorrhœa, but only, I think, when applied to the nasal mucous membrane. It is needless to discuss whether there be erotogenic centres in the nose, Every practitioner has noticed a very close connection between nasal affections, especially those of a stenotic or catarrhal character, and affections of the genital apparatus in both male and female. You also find that you can often cure the one affection by treating the other. Of course there is question of a cocaine habit, but quite a weak solution of cocaine, say six to eight grains to the ounce of glycerine and borax applied with a brush to the nares, or used as a spray diluted with water, is quite effective.

Hot hip baths with mustard and turpentine stupes are always admirable, but only as convenient methods of applying heat and counter-irritation.

Some people sneer at the list of about fifty drugs, which a certain treatise on treatment gives for dysmenorrhœa, but there are obscure cases which baffle all but special treatment selected from a wide range of remedies. Gelsemium, either alone or with croton chloral, is excellent in neurotic and neuralgic creatures. I think chloral hydrate is specially indicated in the dysmenorrhœa of the florid and full blooded. Fifteen grains of it, with as much bromide of potassium, and as many minims of tincture of gelsemium given in chloroform water every three hours when required, is a splendid treatment. For the gelsemium about a drachm of succus hyoscyami or thirty minims of tincture of sem. Stramonii may be substituted.

Apiol seems to be getting into disrepute and valerian regaining confidence. I have given both drugs pretty freely, and think apiol of most use where scantiness is the major trouble, and valerian where the spasmodic paroxysmal pain predominates. Viburnum prunifolium is probably of more value where the dysmenorrhœa is due to affections of the uterus, rather than the tubes or ovaries. Certainly it seldom fails to relieve when given with phenacetin and bromides, but one is doubtful to which of the drugs the credit is due.

I have omitted ergot from the category so far, because although one often orders it with apparent advantage, one hesitates to say that it is a drug which can ordinarily be prescribed with confidence and safety.

Let me finish with an old-fashioned remedy, but one of real merit—asafœtida. Despised by many is an old woman's case, its penetrative volative constituents seem to have an almost specific effect on the ovaries, and though perhaps too stimulating in some cases it is very useful where dysmenorrhœa is due to sluggishness of function.

SAN REMO AS A WINTER HEALTH RESORT.

By Prof. H. KRAUSE.

The number of health sanatoria of various kinds, which started some few years back, especially in Germany, increases from year to year, and the specialisation of such establishments, equipped with the most modern requirements, is being continually developed. Consequently those health resorts, whose benefit depends chiefly on their climatic surroundings, have to struggle hard in the general competition. Winter sports, too, a growth of the last ten years, have proved a great attraction to the exercise-loving members of Western Europe, and will continue to attract many of those who formerly in the colder months sought the comforts of the Sunny South. Thousands of people, who formerly used winter by winter to frequent the southern watering-places, now satisfy their craving for open air and healthy exercise in the highlands of Switzerland and the Engadine. Still a considerable number of winter travellers cannot resist the charm of the Riviera climate, and the only reason to account for this is the incomparable attraction of the winter sun, which, combined with the warming properties of the Mediterranean, filches, as it were, from the winter a sub-tropical vegetation and transplants the traveller, after quite a short journey, from the grey, austere northern atmosphere to the verdant beauty and charm of spring.

However, we do not wish to speak of the crowd who throng to such places in quest of pleasure or amusement, but of the weary and heavily burdened, to which either the sanatorium or climate or both are to bring renewed health and vigour. Sanatoria have of late years gradually changed from a general to a highly specialised type, the various climatic resorts differing from each other in many respects, such as the humidity or density of the air, wind force and mean temperature, each having in consequence a different therapeutic value. Nearly twenty years have gone by since Leyden at the International Medical Congress held at Moscow, uttered the following words:—"The time has come when the bones of our tubercular patients no longer bleach in the cemeteries of the Riviera: the poor sufferers can die at home." From this followed the introduction of the many highly organised tuberculosis establishments, which now exist, and based on these models other sanatoria have been founded year by year for other diseases, in which the patient can reckon on finding competent doctors and meeting with all possible care and comfort, especially if the case is a surgical one, requiring several weeks or months of treatment.

The situation is, however, different in many chronic cases, which may last for years. Doctors no longer require patients suffering, for example, from diabetes, tuberculosis, tabes—if they have the necessary means, to remain for years of their lives in sanatoria; indeed, most of the sufferers would be unwilling to do so. For such cases a sanatorium in our day is a hygienic, dietetic school, which sometimes doubtless accomplishes the process of healing, but more usually merely prepares or introduces it by bringing before the patient in a permanent way the particular conditions of life which suit his particular case. When he has passed through this course of schooling, which in the less severe cases may require but a short time, the important question presents itself to the physician, whether a further stay, although advantageous to the disease itself, may be harmful to the patient's psychical state of mind. No experienced medical man, especially in chronic diseases, underrates the force of moral resistance. A healthy man according to his needs and means is allowed to choose for himself his place of life and environment, and the same privilege, as far as possible, should be conceded to the invalid.

Authorities are beginning to declare against a too lengthy stay in a sanatorium, and in suitable cases shorten the period of isolation and advise a return to normal professional life: even in less favourable cases a release from strict discipline is often thought advisable and time and opportunity are afforded to the patient to put into practice the self-control and mode of life which he has been taught in the sanatorium.

When the time for this change of treatment comes, the patient turns instinctively to the South. Even in plant life this yearning for light and sun manifests itself, and the physician would be wrong to oppose it on principle. The mere number of medical men themselves, who seek and find renewed health and strength on the Riviera, will force him to renounce his opposition. How many of my colleagues have confessed as much to me: they have found it for themselves and they will hand on the discovery to their patients.

I myself have the daily opportunity of observing that under the influence of the Riviera climate the effect and processes of medical treatment are so much quicker and more favourable, and I can no longer doubt that this climate possesses in a very high degree a stimulating power, which extraordinarily hastens the cure. Nor can we be surprised at the astonishing number of reports made at the *Congrès International de Thalassothérapie de Cannes*, 1914, on the enormous curative effects of the *cure solaire marine* in cases of pleuro-pulmonary tuberculosis and diseases of the bones, states of weakness, maladies of heart, nerves, anæmia, nephritis, &c. I have made a few but very satisfactory experiments in sun-treatment, and now can mention with pleasure that a heliotherapeutic establishment for orthopædic and surgical cases has recently been opened at San Remo in a favourable situation close to the sea: this contains big glass-covered verandas for heliotherapy, solarium, covered-in terraces looking on to the sea, operating room, X-ray cabinet, and orthopædic gymnastic apparatus. Comparing the favourable accounts of French doctors with my own experiences of the Riviera climate and the successful treatment of many patients in San Remo, I maintain that in certain categories of diseases it is of the highest importance to give a thorough trial to this method. Especially favourable results are obtained in the treatment of weakness and reconvalescence, anæmia, neurasthenia, arterio-sclerosis, diseases of the heart and blood-vessels, chronic nephritis and surgical tubercular exudations. My personal experiences are more immediately concerned with affections of the upper air-passages, catarrh of the middle ear, *asthma bronchiale nervosum et catarrhale*, neurosis of the respiratory and circulatory organs, tuberculosis of the lungs and throat. In the treatment of these I have always found a great and welcome aid in the climate of San Remo. Its desiccating property is well known, which most efficaciously promotes resorption through the dryness of the air, the evaporation of its exceptionally salty sea-water, and the radiation of its ever-present sun. In San Remo I have been better satisfied with the course taken by many even advanced cases of diseases of the larynx than in the uncongenial climate of the north: not rarely small (? excisions) suffice to introduce the resorption of extensive infiltrations and promote the cicatrisation of ulcers. It may be admitted that in such cases, favourable social conditions, different surroundings, complete rest have their influence, but a remainder is always due to the climate alone. In San Remo, too, less severe cases of lung trouble react satisfactorily, especially where *weakness of the heart* is an aggravation. *In my opinion this weakness of the heart represents a very special indication for the choice of the San Remo climate.* A large number of cases have been sent to us from sanatoria of the plain and mountain, which have been very favourably influenced here. Whether this amelioration has been caused by augmentation of the red cells, hæmochrom and hæmatin, due to the influence of the sea, and attested by trustworthy observers, or has been due to the strengthening of the heart muscle by the mild sea air, or to the easier and more extensive respiratory and circulatory action, or to the co-operation of all these phenomena, the fact remains that the daily rest-cure in our sunny gardens quickly diminishes or removes the fever: respiration deepens, appetite and weight increase, infiltrations become clearer and disappear, coughing and expectoration lessen. Similar observations have induced Professor Torlanini, of Pavia, the famous inventor of the artificial pneumo-thorax, to make San Remo a residence for his patients, his successful treatment of whom is so universally recognised.

Particularly worth mentioning I think are my observations on bronchial asthma, which I have up to now treated according to the principles given in my pamphlet "*Zur Therapie des Asthma bronchiale*" (*Therapie der Gegenwart*, July, 1913). Proceeding in this way, particularly in cases of nervous asthma, I found (? the psychical therapy confirmed), and this was combined with the ascertaining and removal of the special causes (*e.g.*, respiration through the mouth, affections of the nose and pharynx, digestive troubles, vagotomy, &c.). Moreover, the asthmolysin, mentioned in my pamphlet, has proved of good service, not only against the attack itself, but in minimum doses prophylactically: it undoubtedly renders superfluous the abundant use of narcotics. But here, too, we must not overlook the part which the climate played in the treatment. I have certainly found it easier in San Remo than in other resorts to cure the complicating neurasthenia and catarrhal symptoms. The deciding factor in a permanently successful treatment of asthma is not this or that medicament, this or that surgical operation, but the invigoration of the mental and bodily energies of the patient struggling against the causes which provoke the disease.

For such patients I find in San Remo two well-managed health establishments at my disposal, the Villa Azzurra (Dr. Fischetti) and the Bellevue

Kurhaus, under German direction: these are run on comfortable lines, and contain all the apparatus required for modern treatment—electro- and hydro-therapy, X-ray cabinets, air- and sun-baths.

The Riviera is generally fullest of visitors after the New Year sets in, and it is not well enough known that the months of November and December are full of charm with the roses still in bloom and the temperature mild and equable day and night: in San Remo these months are peculiarly desirable for the beginning of a cure.

It may be mentioned that throughout this part of the Mediterranean coast, and certainly in San Remo, great efforts are being made to abate the dust nuisance by tarring the roads and a more frequent use of the watering cart: the dust is now no more noticeable here than it is in other health resorts.

As has been said, the invalid will find a large choice of sanatoria, replete with every modern requirement of comfort and experienced nursing, while the hotels are numerous, pleasantly situated, not extravagantly expensive, and conducted fully up to the standard of the best up-to-date management.

THE ROLE OF TUBERCULIN IN TUBERCULOSIS. (*a*)

By NATHAN RAW, M.D.,

Physician, Mill Road Infirmary, Liverpool.

In this short note I must confine my remarks purely to the pathological aspect of tuberculin and its general bearing on the treatment of tuberculous infections.

In order to understand the effects of tuberculin when injected into the human body, it is necessary to briefly refer to the varieties of tubercle bacilli and their influence in producing varying lesions in the human.

Originally of a common species, it may reasonably be assumed that long environment has resulted in three distinct types:

(1) The *typus humanus.*
(2) The *typus bovinus.*
(3) Avian bacilli.

The Preparation of Tuberculins. (*b*)

The various "tuberculins" are preparations from tubercle bacilli, or from the media in which they have been grown. Koch introduced his first tuberculin in 1890, long before the specific treatment of chronic infections by injections of bacterial emulsions became general. The main varieties of "tuberculin" may be regarded as marking stages in the progress of Koch's investigation.

Koch found that the injection of sterilised cultures of tubercle bacilli, even in considerable quantity, into healthy guinea-pigs produced only local suppuration; in tubercular guinea-pigs very small amounts of the same preparation caused death. By the methodical use of high dilutions, so that the doses given produced no violent reaction, the tuberculous process was apparently arrested. Koch observed, further, that emulsions of bacilli (in the quantities he used) remained unabsorbed at the site of infection and caused suppuration. From this he argued that the curative constituent must be soluble. Thus originated the tuberculins containing those constituents and products of the tubercle bacillus which are soluble in the medium (glycerin-veal bouillon) in which it is grown. For their preparation the organism is grown for six weeks as a film on the surface of the broth.

Bouillon Filtrates (T.O.A. and P.T.O.).

By merely filtering off the organisms from the six weeks' culture the two bouillon filtrates commonly known as T.O.A. (Tuberculin original alt, prepared with a bacillus of human origin) and P.T.O. (Perlsucht Tuberculin original, from a bovine strain) are obtained. These are the weakest of all the tuberculins, and are, for that reason, now used by many workers at the commencement of a course of immunisation.

Old Tuberculins (T. and P.T.).

The tuberculin first introduced by Koch, however, was a concentrated preparation made by evaporating the six weeks' broth culture to one-tenth of its volume, and filtering. This preparation, commonly known as "old tuberculin," also exists in two varieties, made respectively from human and bovine strains of the bacillus, the latter being distinguished as Perlsucht Tuberculin (P.T.). This old tuberculin was introduced into therapeutics before the experiments necessary to determine the proper dosage, frequency of administration, etc., were complete. The result was disappointment and, in not a few cases, disaster. The treatment fell for the time into disrepute, and in Great Britain, at any rate, was practically abandoned until within the last few years. As an aid to diagnosis, however, tuberculin continued to be used, and for this purpose old tuberculin is still the preparation always employed.

The old tuberculins and bouillon filtrates may be classed together as "exotoxic" tuberculins, as distinguished from the "endotoxic" preparations, also called "new" tuberculins.

New Tuberculin (T.R.).

Meanwhile, Koch was experimenting with a view to the production of a tuberculin which should produce immunity to the bacilli themselves, since he had come to the conclusion that old tuberculin immunised only against their soluble toxins. The following process is that which he adopted to secure this. Young and highly virulent cultures are dried in vacuo and then ground in an agate mortar until the microscope shows no intact bacilli. Distilled water is added, and after thorough mixing, the suspension is centrifuged. The upper layer, an opalescent whitish fluid called by Koch T.O. (Tuberculin Oberschicht), is decanted off and discarded. The deposit is again dried, ground, treated with distilled water, and centrifuged. The supernatant fluid from this and subsequent similar extractions is kept, the process being repeated until no deposit remains. The successive extracts, with the exception of the first (T.O.), are mixed, glycerine to the extent of 20 per cent. is added, and the fluid is made up to such volume that each c.c. corresponds to 10 mgs. of the dried bacilli with which the preparations started. Apparently, however, only a portion of the original bacillary substance reaches the final product, since the latter, known as T.R. (Tuberculin Ruckstand), is said to contain only about 2 mgs. of organic solids per c.c.

(*a*) Paper read at the Liverpool Medical Institution, 1914.
(*b*) Wellcome Laboratory Report.

NEW TUBERCULIN (B.E.).

Working on the subject of agglutination, Koch found that the agglutinating power of the blood was increased more rapidly by injections of dead tubercle bacilli than by T.R., and was thus led to devise still another immunising preparation, bacillary emulsion (new tuberculin, B.E.). This consists of an emulsion of one part of dried pulverised tubercle bacilli in 100 parts of distilled water, to which 100 parts of glycerine are added. Bacillary emulsion is analogous to other vaccines consisting of sterilised emulsions of bacteria, and may be supposed to act in the same way. As compared with T.R., it has the advantage of requiring a much less difficult and complex process of preparation; in the doses now in use it has not been shown to be inferior in other respects. It is used for curative purposes.

In my endeavour to find if it was possible to protect animals from an acute infection by means of tuberculin, I inoculated twelve guinea-pigs and rabbits with large doses of human and bovine tuberculin, leaving them for three weeks and then injecting small doses of tubercle bacilli off the opposite strain to the tuberculin used.

In no case was I able to produce a complete immunity, although I thought that the infection was not so virulent and did not tend to progress.

Other observers have obtained the same results, so that I think we are justified in our conclusion that by means of tuberculin only we are not able to completely immunise an animal against infection, even for a few weeks.

With regard to the cultural appearances of the different strains of bacilli we have to admit that they are not constant. After having made some hundreds of pure cultures of all types, I am not at all certain of picking out the individual strains in many instances, although as a general rule one can do so.

The cultures which I show to-night are fairly typical of their type, but some intermediate types, as described by the English Royal Commission, are sometimes perplexing.

It comes to this, then, that we have not yet in our possession any certain method of distinguishing accurately the precise nature of a tuberculous infection, hence we cannot accurately decide whether certain lesions are of human or of bovine origin. I hope that soon our cultural and bacteriological methods will be so improved as to decide this important question.

In the paper which I published in the *British Medical Journal* in 1903, I ventured to suggest that a considerable amount of tuberculosis in children was caused by the bovine tubercle bacillus. Since that time a great amount of scientific investigation has been carried out over the whole world, and especially by our own Royal Commission, with the result that we are now certain of the following conclusions:—

(1) That the great mass of tuberculosis, occurring in the human subject in the form of pulmonary tuberculosis, is caused by the human bacillus (*typus humanus*), and is conveyed from person to person by infection.

(2) That a considerable amount of so-called surgical tuberculosis in children and adults is caused by the bovine bacillus (*typus bovinus*) received into the alimentary canal through milk and food.

Originally of a common species, the bacilli have, owing to long environment in different hosts, assumed marked characteristics, so that we are able, experimentally, to divide them into two types:—

(1) Bacilli of the *typus humanus*, which cause:
    (*a*) Pulmonary tuberculosis and pleurisy.
    (*b*) Secondary tuberculous enteritis.
    (*c*) Tuberculous laryngitis.
    (*d*) Fistula in ano, and possibly some other lesions.
(2) Bacilli of the *typus bovinus*, which cause:
    (*a*) Primary abdominal tuberculosis.
    (*b*) Tuberculous lymph glands.
    (*c*) Tuberculosis of bones and joints (probably).
    (*d*) Genito-urinary tuberculosis.
    (*e*) Acute miliary tuberculosis.
    (*f*) Lupus. Meningitis.
    (*g*) Pulmonary tuberculosis (a small percentage).

I have for the last twelve years separated my wards in hospital into human and bovine wards, and after an observation of over six thousand cases of tuberculosis, I am impressed with the fact that it is rare to see lesions of the human and bovine type associated in the same patient. In fact, they seem to be antagonistic to each other, so that one rarely observes a patient suffering from pulmonary tuberculosis develop any other lesions beyond those mentioned in the human group. It is also rare for cases of gland or bone tuberculosis to develop true pulmonary tuberculosis except in the course of a general systemic infection.

It is necessary to mention this clinical fact to explain my reason for using tuberculins of the opposite strain in the treatment of the disease. There seems to be little doubt that a mild infection by bovine bacilli in the human body, such as neck glands, by way of the alimentary canal, will protect against an infection by human bacilli, and it is most probable that a large number of people are immunised against pulmonary tuberculosis in after-life by having been infected in early childhood by bovine bacilli through milk or food. In all the experimental work throughout the world it has been found to be a rare occurrence to find both types of bacilli in the same body.

VARIATIONS IN VIRULENCE.

Whether or not a patient is going to be destroyed by tuberculosis seems to me to depend on two important factors: (1) Virulence of infection; (2) individual resistance.

The variability in virulence of the tubercle bacillus is well recognised. In many cases, fortunately, the injection shows little tendency to progress in the body, so that we constantly see in practice patients who have suffered from tuberculosis for twenty or thirty years. In other cases, the injection is virulent and rapid, and kills the patient in two or three weeks.

In the former cases the bacilli are of low virulence; in the latter they are highly virulent, giving the body no chance to offer any resistance to the attack.

TREATMENT BY TUBERCULIN.

It is in the avirulent bacillary infections that tuberculin is of such great service, and I have found it of little or no value in acute virulent infections.

The whole object of treatment by tuberculin is to produce an immunity in the blood against infection by tubercle bacilli; and, what is even more important, to prevent the further spread of the bacillary infection in the tissues. Whether or not it is possible to ever produce a complete lifelong immunity against tubercle is a matter of doubt.

As a result of my experience, I have found that the lesions in the body which are caused by the *typus humanus* are benefited more quickly and certainly if a tuberculin prepared from the opposite strain—namely, bovine tuberculin—is used; and in all cases of pulmonary tuberculosis I now only use bovine tuberculin. It is less toxic, and does not so readily cause reaction, is more easily tolerated, and causes the bacilli to disappear from the sputum more quickly. For the lesions caused by the *typus bovinus*—namely, lymph glands, tuberculous peritonitis, lupus, tuberculous disease of the bladder, bones and joints—I invariably use Koch's old tuberculin prepared from human cultures.

The question of dosage is of vital importance, and my routine practice is to administer a course of tuberculin in twelve weekly injections, then resting for a month, and, if necessary, repeating the maximum injection every week. My dosage is as follows, of either human or bovine tuberculin:

0.0001 mg.
0.0002 ,,
0.0004 ,,
0.0005 ,,
0.0006 ,,
0.0008 ,,
0.001 mg.
0.004 ,,
0.006 ,,
0.0075 ,,
0.008 ,,
0.01 ,,

A special watch must be kept on the temperature, pulse and blood.

It is rare to observe a general reaction if the above dosage is carefully followed.

In a great many cases the tubercle bacilli disappear entirely from the sputum at the end of a course of injections, but, unfortunately, if the tuberculin is not persisted in they in many instances speedily return; so that in some cases of pulmonary tuberculosis the injections should be continued for an indefinite time.

Whilst tuberculin *per se* cannot be expected to heal cavities in the lung or replace damaged tissues, yet it undoubtedly has the power of preventing the spread of the tubercle to healthy parts by means of its immunising effects. Time is thus given for repair of the affected tissues.

In conclusion, I would like to express my opinion, after treating over a thousand patients with injections of tuberculin, that it is a remedy of the greatest value, especially in early cases and where the deposit of tubercle is localised, as in one apex or in a lymph gland or single joint; but where the tuberculosis is disseminated and complicated by secondary infections, the use of tuberculin cannot be expected to be of much avail. It ought, however, to be tried in every case with the hope of some relief or possible benefit, as we cannot allow the patient to suffer and die without making every effort to arrest the progress of the disease.

Tuberculin is not going to revolutionise the treatment of tuberculosis. It is a valuable aid to the other methods of treatment, hence it must be used with care and discrimination and with a full knowledge of its dosage and therapeutic effects.

I would conclude by saying that the best treatment we can offer to-day to a person infected with tuberculosis is a prolonged open-air life, preferably in a well-conducted sanatorium, excess of nutritious food, gentle exercise followed by plenty of rest, and a course of tuberculin by a careful physician.

THE HOUSING OF THE WORKING CLASSES—STANDARD OF AN HABITABLE HOUSE IN TOWN AND COUNTRY. (a)

By A. B. DUNNE, B.A., M.B., B.C.Cantab,
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The question of a standard of an habitable house is one which must have presented itself to most medical officers of health when called upon to discharge their statutory duties under Section 30 of the Housing of the Working Classes Act, 1890.

I propose to limit my paper to a consideration of the standard applicable to houses inhabited by what may be broadly termed the working classes. The question of a standard for new houses both in town and country presents no essential difference, although subject to modification by locality, type of workmen to be housed, rate of wages, etc.

Another point, and in my opinion a very important one, is what standard should be applicable to existing houses? This raises issues in which "the personal equation" of the individual medical officer of health must of necessity play an important part, and still more so that of the local authority.

Let us first of all direct our attention to the standard which is required for a house to be occupied by the regularly employed artisan or collier. For the less fortunate workman in the towns and the agricultural labourer a cheaper class of house is required, simpler and more restricted in its conveniences.

I have recently been interested in a scheme for housing the working classes initiated by the urban district council of Bentley, which may be regarded as a typical modern mining community. A type of house is designed to let at 7s. per week clear. A description of this class of house, designed by the council's surveyor, Mr. R. G. Whiteley, for the accommodation of artisans and colliers, well illustrates the standard of an urban working man's dwelling.

The ground plan shows living room, scullery, food-store, coal-place, and closet; on the first floor there are three bedrooms. There are no outbuildings or projections from the main buildings, all are under one roof. The living-room is 15 ft. by 12 ft. 6 ins. clear, and scullery 11 ft. 6 ins. by 9 ft. 6 ins., with copper, sink, and bath provided. A w.c. is placed in a closet, access to which and the coal-place is from the recessed porch of the back entrance.

There is a recessed porch to the front door. A food-store 6 ft. by 2 ft. 7½ ins., which ventilates directly into this porch, is provided alongside the living-room. A staircase 2 ft. 9 ins. wide leads directly out of the living-room, and is placed over the coal-store and closet.

The first floor contains three bedrooms as follows: No. 1, 12 ft. 6 ins. by 10 ft. 3 ins.; No. 2, 11 ft. 6 ins. by 9 ft. 6 ins.; No. 3, 9 ft. 6 ins. by 7 ft. 6 ins. All the bedrooms can be entered directly from the landing, and are provided with fireplaces, with the exception of No. 3. The frontage of such a house is 18 ft. 9 ins., and the depth 23 ft. 10½ ins., and are intended to be erected in blocks of six or eight.

(a) Paper read at the Congress of the Royal Sanitary Institute Blackpool, July 6th to 11th, 1914.

It will be noticed that no "hall" or "parlour" is provided. Such, then, is a standard house for, if one may so call him, a standard workman with a standard family. A few general observations are necessary. I take it that any dwelling intended for permanent occupation must be built of bricks and mortar, the common currency of the building trade, as one may term them. So far as I am aware, no cheaper form of material has successfully established its claim to supplant them.

Site of Dwellings.—Much of the present deplorable state of the housing which now exists is due to the fact that any place was thought good enough to build a house upon, and to a certain extent the same is true to-day. Therefore, one of the most useful provisions in any town-planning scheme is that which enables the local authorities to determine what parts of an area are to be allotted to dwelling-houses, factory sites, etc. Much low-lying and otherwise unsuitable land for building houses upon will thus be ruled out. Now that the value of direct sunlight is becoming more appreciated, there is additional reason that the living-room should have a south-east or south-west aspect. The minimum accommodation required resolves itself into the question of individual requirements and wages; but, apart from this, what should guide an authority in designing a house?

Having visited many workmen's homes, I am of opinion that a large sunny living-room, at least 14 ft. by 12 ft., is a *sine qua non*, and my opinion has been confirmed by answers I have received from housewives whom I have questioned.

It has been argued that another room or parlour should be provided; that the husband or young couple must be thought of. My answer is that the claims of the housewife come before the husband, and that the young couple will look after themselves. What use is a parlour in most cases? I have more often than not found it unfurnished, or used to store the bicycle or pram in; sometimes let off to another family, or used as a bedroom for a lodger. The choice lies between a large, cheery living-room, with plenty of elbow room, and a cramped living-room and a pokey parlour.

Is a "hall" required? No. This cannot be without sacrifice of valuable space, which can be better utilised in the general living-room, than being wasted by being cut off as a dark, narrow passage, which leads to a front door seldom, if ever used.

Of what material should the floor of the living-room be? Much may be said for a board floor, but this presumes sound, seasoned wood, and good, honest workmanship. A board floor is hard to keep clean, often harbours filth, and is much more difficult to scrub than a tiled one. I am myself in favour of tiles or "quarries" set in cement. Few will deny that one's own kitchen thus floored is amongst the cleanest and most comfortable of rooms. Ask a woman of experience which is the easiest to keep clean, and she will say a tiled floor. This floor is dry, clean and durable.

A good closed range is both economical in cooking and cleanly, and has this advantage over an open or Yorkshire range, that more than one pan at a time can be used for cooking. An essential to a living-room is the provision of one or more large cupboards. A good scullery is the next essential. I have presumed that water is laid on over a glazed earthenware sink provided with a large hardwood drainage board. A copper should be provided fitted with a galvanized iron cover, so arranged as to permit the steam to escape up the flue. Lastly, a bath should be provided with hot and cold water laid on, and should have a hinged lid to cover it when not in use. Much amusement has from time to time been aroused by tales concerning the uses to which the bath has been put. I have made it a point to examine as many baths as I could, and have not up to now found any rabbits or boxes of bedding-out plants kept in them. I think too much has been made of the misdeeds of tenants.

Is a water-closet an essential? In a house such as I am describing, erected in a locality where there is a public water supply and a sewage-disposal system, a pedestal w.c. is an essential. Between the water-carriage system and any other, at all events as regards urban communities, "the verdict of the stricken field has been given," to use a picturesque phrase of the Lord Salisbury.

The w.c. is placed in a closet which is isolated from the house by the rear recessed porch; this arrangement allows of a greater degree of privacy, and permits of a backyard unobstructed by outbuildings, an important matter when the washing is done at home and the clothes have to be hung out to dry in the backyard.

The Foodstore or Pantry.—This very essential provision has hardly received the attention which it deserves. At the Congress at York a very instructive paper was read on this subject, which will repay reading. The foodstore in the past has been an after-thought, but I have noticed in the new colliery village houses that very satisfactory ones are provided; in fact, more so than in my own house, which is of the understairs type.

The ideal foodstore is on the ground floor, with one wall an outside one at least. It need not necessarily be large, as food is not bought and stored in large quantities nowadays, but it should be cool and well ventilated directly into the open air, and should not be placed under the stairs. A cold slab is a very useful adjunct. A space of 6 ft. 3 in. will usually be quite sufficient.

How many bedrooms should there be?—For the proper separation of sexes, which now is impossible in many houses, three bedrooms should be provided. In fact, the question of bedroom accommodation ranks along with the living-room as the two important questions in housing. As the usual size of beds are, double 6 ft. 6 ins., and 4 ft. 6 ins., and single 6 ft. 6 ins., and 3 ft., two of the bedrooms should be of sufficient size to accommodate a double bed. The largest room will usually be occupied by husband and wife, and should in addition be able to take a small bed or cot for the little one. A room 12 ft. 6 ins. by 10 ft. 6 ins. by 8 ft. will do this comfortably.

The bedroom window should not be less than one-tenth the floor space; this, in my opinion, can with advantage be increased. Let me put in a plea for the sash window, as enabling the room to be more conveniently ventilated than by one of the casement type. The latter, with their cheap fittings, soon get broken and out of order, and then the window is seldom opened. The third bedroom should easily accommodate a single bed, but as single beds are but rarely used by the working classes, it were better that this room should be designed for the use of a double bed. All bedrooms should have a fireplace, but in the type of house we are considering it is usually impracticable to provide fireplaces in all three bedrooms. A ventilating opening must be placed in the outside wall.

The Back Yard.—Experience leads me strongly to urge the asphalting of the whole of it. In theory, to reserve some part of it for flower beds is all very well, but in practice all uncovered earth soon becomes trodden down, and then soaked and soddened with tea-leaves, scraps of broken food, potato peelings, etc. Therefore, an asphalted back yard is an essential, as thereby alone can it be kept clean and sanitary.

Finally, sanitary dust bins should be provided. The ones which are supplied are too small in most cases to contain the week's household refuse. Unfortunately, these tins soon get knocked about and worn out and the lids lost, though fastening them by a chain to the house wall will obviate this. A back yard common to a block of houses should not be countenanced. It is a fruitful cause of untidiness, and what is everybody's business to keep tidy is nobody's. The rule should be every house its own back yard.

When we consider the standard of a habitable house for the poorly-paid worker in the town and the agricultural labourer, we are at once faced with the difficulty that the average weekly income of the former may never reach 25s., and in the latter rarely 18s. or 20s.

What rent can these afford to pay, keeping in mind the expense of rearing a family and the enhanced cost of living? I certainly think that 4s. and 3s. a week are the utmost that can be asked, any more is at the risk of bringing up a semi-starved and impoverished population. Can houses be built to let within these rentals, and of what materials, on what land, of what size, and with what maximum room accommodation? It has been suggested that the £100 cottage will solve the difficulty in the agricultural districts. Will it? I have my doubts, which have been confirmed by the account that I have read by Dr. R. W. C. Pierce in his annual report for 1913, to the Guildford rural district council on the cottages built by Mr. St. Loe-Stracey.

The labourer is worthy of his home, which must be soundly built of durable materials, plain in character, and necessarily shorn of some of the conveniences and amenities found in the urban workman's home. To mention one in particular, a bath. At the church congress at Southampton last year, Lord Salisbury said that the agricultural labourer did not want one; his lordship's statement was warmly traversed. There are conveniences now lacking in many rural cottages which might well take precedence of a bath. How about a copper? It does duty for both purposes in thousands of homes. I should certainly prefer a copper to a bath any day, and the cottage housewife has my sincerest sympathies when she has to boil the weekly wash in the pot over the open kitchen fire.

As water will rarely be laid on, a well-designed privy should take the place of a w.c. Even for houses under the rank of the country mansion, an experience of country rectories in several dioceses has led me to entertain the opinion that there is much to be said for the advantages of the earth closet over the w.c.

Finally, as my paper would run into several appendices, I must conclude with a few words on the standard of habitability of existing houses. What principles should guide one in arriving at the conclusion that "a dwelling house appears to be in a state so dangerous or injurious to health as to be unfit for human habitation"? Local authorities are apt to take a different view from their professional and statutory advisers as to the grounds on which the representations are based. Briefly, I would enumerate such conditions, either existing alone in such a marked degree or in conjunction with other, as would support such a representation:

1. Dampness in living rooms of old houses, due either to walls built without damp courses, or of very hygroscopic materials, such dampness rising up the walls to a considerable height, or extending over a large area, and persisting even in dry weather.

2. No through or sufficient ventilation. Amongst such dwellings I would include those houses which are built "back to earth," where the adjacent earth reaches a high level, and back to back houses, so common in the northern towns.

3. General dilapidations, under which I include cottages with walls perished, roofs leaky, rafters rotten, bedroom floors sprung and unsafe, and broken tiles laid on earth.

4. The hopeless cases, for instance, dwellings which have been improvised out of old malt-kilns, barns, cart-sheds, and other miscellaneous buildings.

In conclusion, I feel that I have merely touched on the fringe of the question, but what I have said has been prompted by an experience of the actual conditions under which numbers of our fellow-countrymen, their wives, and families are living. The fortitude and patience of the women under the often adverse circumstances of their homes are admirable, and in their devotion to their homes and their children they put to shame many mothers in better circumstances. The cleanest and brightest home I was ever in was that of the wife of an agricultural labourer; in others respects it was quite as remarkable: it was merely formed by partitioning off part of a cartshed. The bedroom, approached by an almost perpendicular ladder, was the space between the tiled roof and the living-room ceiling.

Standards are of little use unless efforts are made to reach them. The question of housing cannot remain as it is, touching as it does the most numerous classes of our population in their daily lives. The public elementary schools have inculcated a higher standard of living amongst the people, and what the present adult generation will tolerate their children will not ; *cui bono* to teach the girls housewifery and cooking in our schools when the lessons there taught are to be nullified in the home.

The future well-being of the nation depends in a large measure on the satisfactory housing of our industrial population.

OPERATING THEATRES.

ROYAL FREE HOSPITAL.

Exostosis of the Tibia.—Mr. Willmott Evans operated on a boy, æt. 14, who had been admitted complaining of a swelling on the inside of the knee. The history was that the swelling had been noticed there for the last three or four years; it never caused any pain, but was steadily increasing in size. On palpation the swelling was felt to be hard and to be attached to the inner side of the upper end of the tibia; the skin was not attached to it. The swelling was evidently slightly pedunculated. A diagnosis of cancellous exostosis was made, and an operation for removal was advised.

The boy was anæsthetised, and an incision two inches in length was made over the swelling. This was deepened until the surface of the tumour was seen. It was found to be capped by a bursa. By means of a chisel and a mallet the bony pedicle was cut through and the tumour removed. Bone forceps were employed to smooth the remains of the pedicle. The deep fascia was stitched together and the skin wound closed with Michel's clips. An aseptic dressing was applied.

Mr. Evans said there are two varieties of exostoses —in the one the bony swelling consists mainly of cancellous tissue, but on the most superficial part there is a thin layer of cartilage which grows on the surface, while the deeper part is converted into bone, so that this tumour may be regarded as an ossifying chondroma. It is always pre-formed in cartilage, and cannot occur in connection with any bone which is not developed from cartilage; thus a cancellous exostosis is never met with arising from the membrane bones of the skull. A cancellous exostosis is rarely harmful, and as a rule it does not attain any great size, for usually it ceases to grow when the epiphysis joins the diaphysis of the bone from whence it comes; that is to say, by the age of 21 or 22 years it has ceased to grow, and all the cartilage forming its cap has become converted into bone. Occasionally it may attain a size sufficient to interfere with walking, and this is especially likely to happen if a tumour arises from each tibia so that they come in contact in walking. There is another way, Mr. Evans remarked, in which a cancellous exostosis may give rise to trouble, and that is by interfering with a tendon; for instance, it happens sometimes that the tendon of the sartorius may slip over the exostosis when the leg is fully bent, and then, when the patient desires to extend the knee, the tendon cannot slip back into position.

The ætiology of these growths, Mr. Evans pointed out, is not without interest. Cohnheim long ago suggested that these tumours were due to a small portion of misplaced tissue, and, though the idea of "rests" has been almost entirely given up, it is probably the simplest explanation of these cancellous exostoses, for they are only found in cartilage bones, and then only near the epiphysial line. The fact also that they usually cease to grow when the bone is completely ossified is consonant with this explanation. There is one other site in the body, Mr. Evans said, where a cancellous exostosis is not uncommonly found, and that is on the terminal phalanx of the great toe; no good explanation of this has been given. It has, indeed, been suggested that it is atavistic, and that it represents the third phalanx of the great toe which was lost at an early age in the development of vertebrates. Still, as this third phalanx had already been lost when the reptilia were developed, it appeared to him improbable that it should endeavour to return after so long an absence. It is always desirable, he considered, to remove cancellous exostoses in children, but the greatest care must be taken to remove every particle of cartilage, otherwise return is extremely probable.

The other variety of exostosis, Mr. Evans remarked, is the ivory form of exostosis. It is only found on the skull; it may block the external auditory meatus, or, when arising in the orbit, it may displace the eye and give rise to diplopia. Sometimes, when it starts from the inner aspect of the calvarium, it may give rise to symptoms of cerebral tumour. Ivory exostoses are of extreme hardness, and generally defy the chisel, and recourse must then be had to the saw or the drill to cut through the base of the tumour. Both varieties of exostosis are completely benign.

The wound healed by first intention, and in a fortnight the patient was able to leave the hospital.

SPECIAL REPORTS.

DR. VITTOZ'S EXERCISES FOR DEVELOPING MENTAL CONTROL.

By Miss HILDA WIGRAM.

I.

Dr. Vittoz's mind-training is based on the fact that he believes he has discovered a system of muscular vibrations, by which the state of mind of the patient can be shown to the physician. He places his hand on the patient's forehead, and by means of these vibrations which he feels, can diagnose the patient's mental condition. This is of course of great value, as it enables him to find out the mental habits of his patient in an hour or two, whereas it would take the ordinary physician days of careful observation to note these same weaknesses. It is not, however, likely to be of practical importance. To get the hand sufficiently sensitive needs careful and patient practice, and it is hardly probable that we shall find medical practitioners able and willing to devote time and attention to such a side branch of psychotherapy. Since there have been somewhat one-sided criticisms of Dr. Vittoz's exercises and system, I propose to deal with a few special points in his training, the value of which appear to have been overlooked.

His system divides itself naturally into two parts:—

I.—The exercises from the point of view of diagnosis.

II.—His system of education and training of the will.

I.—I will take first the few that Dr. Crichton Miller quotes in his interesting article on the re-education of attentive control. (*B.M.J.*, Nov., 1912).

(1) *Figures of eight or* ∞.—The value of this consists in the regular attention *without break* that it necessitates. Many patients can with ease put up mentally figures, letters, etc., but cannot make a ○ or ∞. Spaces occur in the curves or they do not finish it, in which case the physician may be sure that the patient has difficulty in *completing* the smallest task he undertakes; this should be pointed out to the patient.

(2) *The Figure* 1.—Dr. Miller classes as an alternative exercise, but it in reality serves a totally different purpose. With difficulty the patient summons his entire concentration, saying the "1" to himself, writing it, and hearing it said. Directly it is finished the mind should rest, the purpose being to learn concentration and de-concentration. According to the ease with which the patient leaves the figure, the physician determines the amount of difficulty he has in putting all work thoughts away when he wants to rest.

(3)—*Ticking of a metronome* is useful for increasing power of monotonous effort, but its chief value lies in the physician being able to feel by the vibrations the amount of strain on the aural senses, when the patient is listening to the ticking. By showing the patient how to relieve the strain, earache, sensitiveness to sounds, buzzing in the ears, etc., have all been cured.

(4)—*Tactile exercises* are among the most valuable. According to the way the patient feels one thing consciously, the physician can determine to how great an extent the subjective state is controlling him.

These with all other conscious acts are, I submit, the foundation on which the whole theory of attentive control rests.

(5)—*Concentration on different parts of the body* gives confidence to the patient, as after very little practice a certain pricking sensation comes in the member thought of, and gives him reason to hope that his mind may attain some control over his body.

Putting up numbers and wiping them out is one of the most useful exercises to the physician, as it shows him whether the patient has the power of retention and not of elimination, or the reverse. It also shows him whether the patient is always looking ahead mentally, or looking back, whether he is inclined to hasten away from what he does not want to think of, or to cover it up with other things; whether things are clear to him, or always rather vague; whether he can keep several things in his mind together, or whether each succeeding thought sends out the other—whether, when driven to action he can act decidedly, or whether always with hesitation. It is also possible for the physician to determine by these vibrations whether the patient needs mind training or some other treatment. If the mind is found in a state of very great confusion, torpor or tension, it is clear that the person needs training, and that may be all that is necessary. As a rule in these cases the mental repression or conflict is near enough to the surface of the conscious to be dealt with by conscious training of the mind, and that is sufficient treatment.

If, however, the patient shows certain physical or mental symptoms, and on examination his mind is in a state of comparative clearness, the physician should immediately suspect a much deeper repression, and the analysis would of necessity have to be more searching. Of course, the patient may suffer from mental confusion and also from an unconscious repression, but in this case it is usually useful to give two or three weeks' mental training, before beginning an analysis, as it clears the patient's mind of all side issues, gives him a certain amount of confidence in himself, and also gets him into sympathy with the physician, which saves much time in the ensuing treatment.

II.

Having given a few specimens of Vittoz exercises I will now deal with his system of re-education.

It must be borne in mind that Vittoz places absolute reliance on the diagnosis which the muscular vibrations give him. He finds the patient lacking in mind control in some way, sometimes to a very grave extent, and he argues that if he can teach him perfect control of his thoughts, *whatever be the primary cause of the illness*, the patient will be cured. He therefore aims at establishing the power of concentration, consciousness, and relaxation. According to the state of mind of the patient, exercises should be regulated; should the state of torpor prevail, one would give concentration exercises, but should tension be paramount these are dangerous and one would be careful to teach the patient how to be conscious and to relax in great detail. To one patient straight lines are a source of joy, to another anathema, and of course *any* source of irritation must be immediately stopped, and the exercise so altered in character that though it performs the same service the patient does not recognise it.

The end towards which Vittoz aims is the absolute reliance of the patient on himself; and this principle he inculcates from the very beginning of the training. It will be argued that every good psycho-therapist has this end in view, but where I think Vittoz's system differs from that of others is that he goes into far greater detail; by means of the exercises he is able to gauge the amount of control the patient has, and asks from him an effort that he knows he can make; a task he knows he has the power to perform. A great many failures seem to be accounted for by the fact that the physician asks too much, a desperate effort is made and failure is the result: or the effort is made with so much tension that a reaction follows, and the patient is in despair. Under Vittoz's system a very gradual course is followed and the patient gains confidence. By the mechanical exercises he establishes a base line on which he can take his stand.

To illustrate my meaning we will turn for a moment to one of the number exercises. In this we ask the patient to write up mentally, 1, 2, 3, and then eliminate what he does not wish to keep. At first, possibly he has difficulty in doing this, but when he has succeeded, he can then do the same with words, and ideas, until he knows that he can banish or retain an idea at will. It cannot be too strongly insisted that the physician must be careful not to hurry the patient, as the great point in the early stages is for the patient to be sure of his own power over small things. It should be pointed out that to take a walk of 15 minutes *voluntarily*, and keeping consciousness, is of greater value than one of 30 minutes urged by someone else, that to keep his mind calm by exercises when he is tempted to be overwhelmed with fear involves a mental and moral effort which will stand him in good stead all his life and finally that when he is able to bring forward "clichés" and boldly face all his past troubles, he will have attained a measure of mind control that a great many of his most normal friends lack.

After the first lesson or two the physician should have discovered a starting point in the patient's character, *some* quality to which he can appeal, *some* mental characteristic which is the strongest point. I admit that in certain cases *any* element of real force is hard to find, but I contend that it is the duty of the educator to look for it, and when found work on it, for it is on his strongest point that the patient's cure will begin. At the same time the physician must take care that he is strengthening the weak points in the patient's mental armour, and drawing his attention to them. The keynote of the training is encouragement, but it must be encouragement based on some achievement of the patient's. To take a simple instance the patient comes into the room and says: "I have been much better the last two days." The Vittoz educator, instead of replying how glad he is, should ask how that is. If he learns that the patient has begun each day badly, but by deliberate efforts has kept well, he should encourage him, but if he hears it is simply by chance, the physician should carefully point out that this is no good to him, that an automatic cure is not to be relied on and is of no value to the patient, and that he is not really grasping the idea of the treatment. The Vittoz educator *must* remember that the value of his teaching lies in the fact that the patient is curing himself, his *own* work, his own efforts, and this belief must be planted strongly in the patient's mind. As a rule, it is best to keep the treatment on what the patient at any rate believes to be a purely mechanical basis for the first few weeks, the physician then gains a greater knowledge of the patient and his life and habits, and the patient establishes a firm habit of control. At the end of that time, he is more able to face any trouble or conflict. Putting his hand on the patient's head the physician asks him to think of some worry, fear, etc. By the state of the mind, etc., the physician can gauge how deep-seated is the trouble, and whether it is likely to be the cause of the illness. He goes on from one subject to another in this manner; the patient is led to speak of things he would not otherwise have done, and he is taught to bring all his troubles into consciousness. Of course, by the vibrations the physician can tell, what is a real "cliché" and what is not. If he comes on something which gives rise to great irritation, anxiety or tension in the mind, he may suspect a deeper suppression, and may carry his analysis further if necessary. If, however, he believes he has reached the source of illness, he will then show the patient that he must *voluntarily* bring it forward a few times a day, and then put it out of his mind.

Of course, this part of the treatment needs great care on the part of the physician. If undertaken too soon the patient will relapse; if not soon enough he will feel too well to bother about it, and will, in all probability, relapse in a few weeks' time, after he has ceased to have treatment.

It is, perhaps, in the training of the will that Dr. Vittoz's method is most helpful. To those suffering from aboulia this must be taken most carefully and patiently. Each day the *malade* makes some small decided *effort de volonté*. The physician should watch these carefully and in detail. He should seldom ask this type of patient to say he *will* perform a certain act, but ask him to say he "will try to do it." Exactly the same measures of concentration is put in, but if the patient fails he does not have the feeling of despair. With a patient of a different type who has plenty of will the training consists mainly in showing him how to use it without strain for this it is necessary to get him to realise the physical feeling which follows after a pure effort of will, and to discern between *real* force and tension. A very important thing to teach him is to induce his physical ills to come upon him *by his own will*, instead of keeping them at bay; this will assure him as to their psychic nature, and is also of great therapeutic value. I have seen facial contortions, where all power of muscular inhibition was lost, faintness, fidgeting, etc., all cured by these means.

There seems to be some misconception as regards Vittoz's system even among those who say they have studied it. They appear to think that because a Vittoz patient has learnt concentration by simple exercises, he is to be a slave to those exercises all his life. I maintain that this is a totally wrong conception. *No* patient who has been well taught ought to have to do exercises for more than a few months; so far as he relies on his exercises he is mechanically cured. To the man who has attained a thorough grasp of the principles at bottom of the Vittoz education, everything becomes an experience, a real exercise of mental power. He realises that he has a control in himself which he can daily increase, a power of concentration and detachment at will. That he can go on adding to his powers, increasing them, experimenting, should be impressed on every intelligent patient; he must not be led to think he is to be turned out at the end of two months' training the "finished article."

Another reason why I believe the Vittoz system to be under-estimated is because few medical men understand to what extent their patients lack concentration. Because they conduct an argument with their physician with some ability he is blinded to the fact that very often they cannot attend to a simple book of a few pages *when they wish to.* In fact the ordinary medical man fails to differentiate between voluntary and spontaneous attention. Until he does so, we cannot expect him to see the necessity of teaching voluntary attention in detail.

One thing that the physician must guard against, is not to give too much of himself to the patient. In certain cases it is occasionally necessary for the physician to use his own vitality to inspire his pupil. For the patient's sake this must cease as soon as possible, and also for the sake of the physician. But for those cases in which it is necessary at a certain crisis to use it, I would add a few words which may help the physician. The moment he realises that a "crise" is imminent, and that some personal help is required of him, he should definitely relax his mind, and then perfectly voluntarily and calmly give out all his power. If he does it with any unwillingness or with excitement he will pay for it in an abnormal fatigue. After seeing a case of this sort he should allow himself a moment or two if possible before seeing the next, so as to be sure that he does not carry over any unnecessary excitement to a case that would be better without it.

EXCERPTS FROM THE REPORT OF THE SELECT COMMITTEE ON PATENT MEDICINES.

THE following excerpts from the Report present its findings and recommendations, which are of the highest importance to the public health:—

55. After careful consideration of the evidence laid before them your Committee find:—

(1) That there is a large and increasing sale in this country of patent and proprietary remedies and appliances and of medicated wines.

(2) That these remedies are of a widely differing character, comprising (*a*) genuine scientific preparations; (*b*) unobjectionable remedies for simple ailments; and (*c*) many secret remedies making grossly exaggerated claims of efficacy; causing injury by leading sick persons to delay in securing medical treatment; containing in disguise large proportions of alcohol; sold for improper purposes; professing to cure diseases incurable by medication; or essentially and deliberately fraudulent.

(3) That this last-mentioned class (*c*) of remedies contains none which spring from therapeutical or medical knowledge, but that they are put upon the market by ignorant persons, and in many cases by cunning swindlers, who exploit for their own profit the apparently invincible credulity of the public.

(4) That this constitutes a grave and widespread public evil.

(5) That in British Dominions and foreign countries severe legal restrictions exist, and that there is a tendency still further to strengthen the law against these articles.

(6) That no Department of State and no public officer is charged with the duty of controlling the sale and advertisement of proprietary remedies in this country; that the Home Office and the Local Government Board are virtually powerless in this respect; that the Privy Council Office, though supposed to be specially concerned with the sale of drugs, has no initiative in the matter, and, in fact, it fulfils no useful function in this connection.

(7) That the existing law is chaotic and has proved inoperative, and that successful prosecution for fraud in the advertisement and sale of secret remedies is fraught with the greatest difficulty, though the Public Prosecutor has perhaps not sufficiently tested the powers of the existing law in respect to such cases.

(8) That consequently the traffic in secret remedies, except as regards scheduled poisons and the grosser forms of impropriety, is practically uncontrolled in this country.

(9) That this is an intolerable state of things, and that new legislation to deal with it, rather than merely the amendment of existing laws, is urgently needed in the public interest.

(10) That grave injury is caused to the public by the existing large sale of medicated wines.

(11) And that while, for reasons already given, it is not desirable to require the exhibition of formula of every secret remedy, nevertheless it is improper that under the protection of the law enormous quantities of alleged remedies should be sold the composition of which is unknown to any person except the manufacturers of them; and that, therefore, the formulæ of all secret remedies should be required to be communicated to a competent officer appointed under the authority of a Minister of State, but that such formulæ should not be divulged to any other person except as hereinafter recommended.

RECOMMENDATIONS.

56. Your Committee therefore recommend:—

(1) That the administration of the law governing the advertisement and sale of patent, secret and proprietary medicines and appliances be coordinated and combined under the authority of one Department of State.

(2) That this administration be part of the functions of the Ministry of Public Health when such a Department is created, and that in the meanwhile it be undertaken by the Local Government Board.

(3) That a competent officer be appointed to this Department, with the duty of advising the Minister at the head of the Department concerned regarding the enforcement of the law in respect of these remedies.

(5) That there be established at the Department concerned a register of manufacturers, proprietors and importers of patent, secret and proprietary remedies, and that every such person be required to apply for a certificate of registration and to furnish (*a*) the principal address of the responsible manufacturer or representative in this country, and (*b*) a list of the medicine or medicines proposed to be made or imported.

(6) That an exact and complete statement of the ingredients and the proportions of the same of every patent, secret and proprietary remedy; of the contents other than wine, and the alcoholic strength of every medicated wine, and a full statement of the therapeutic claims, made or to be made, and a specimen of every appliance for the cure of ailments other than recognised surgical appliances, be furnished to this Department, such information not to be disclosed except as hereinafter recommended, the Department to control such statement, at their discretion, by analyses made confidentially by the Government Chemist.

(7) That a special Court or Commission be constituted with power to permit or to prohibit in the public interest, or on the ground of noncompliance with the law, the sale and advertisement of any patent, secret or proprietary remedy, or appliance, and that the Commission appointed for the purpose be a judicial authority such as a Metropolitan Police Magistrate sitting with two assessors, one appointed by the Department, and the other by some such body as the London Chamber of Commerce.

(8) That the President of the Local Government ment (or Minister of Health) have power to sub-

stitute the necessary proceedings to enforce compliance with the law, the sale and advertisement of any patent, secret or proprietary remedy, or appliance.

(9) That a registration number be assigned to every remedy permitted to be sold, and that every bottle or package of it be required to bear the imprint "R.N. . . ." (with the number), and that no other words referring to the registration be permitted.

(10) That in the case of a remedy the sale of which is prohibited, the proprietor or manufacturer be entitled to appeal to the High Court against the prohibition.

(11) That the Department be empowered to require the name and proportion of any poisonous or potent drug forming an ingredient of any remedy to be exhibited upon the label.

(12) That inspectors be placed at the disposal of the Department to examine advertisements and observe the sale of proprietary remedies and appliances

(13) That an annual fee be payable in respect of every registration number issued.

57. Your Committee make the following recommendations regarding the amendment of the existing laws:—

(1) That the Stamp Acts be consolidated and amended to remove the numerous existing anomalies and unreasonable exceptions. In this connection, pure drugs vended entire under a fancy name should no longer be exempt from duty; the distinction between the name of an ailment, and the name of an organ the seat of that ailment, should be abandoned; and the exemption of medicines generating carbonic acid gas should be omitted (see par. 16). Further, any reference in advertising matter to the Government stamp should be prohibited, and no name of a proprietor or firm should be printed upon the stamp.

(2) That the Indecent Advertisements Act be amended on the lines of Lord Braye's Bill.

58. Your Committee further recommend the following further enactments:—

(1) That every medicated wine, and every proprietary remedy containing more alcohol than that required for pharmacological purposes, be required to state upon the label the proportion of alcohol contained in it.

(2) That the advertisement and sale (except the sale by a doctor's order) of medicines purporting to cure the following diseases be prohibited:—

Cancer
Consumption
Lupus
Deafness
Diabetes
Paralysis
Fits
Epilepsy
Locomotor ataxy
Bright's disease
Rupture (without operation or appliance)

(3) That all advertisements of remedies for diseases arising from sexual intercourse or referring to sexual weakness be prohibited.

(4) That all advertisements likely to suggest that a medicine is an abortifacient be prohibited.

(5) That it be a breach of the law to change the composition of a remedy without informing the Department of the proposed change.

(6) That fancy names for recognised drugs be subject to regulation.

(7) That the period of validity of a name used as a trade mark for a drug be limited, as in the case of patents and copyrights.

(8) That it be a breach of the law to give a false trade description of any remedy, and that the following be a definition of a false trade description:—"A statement, design or device regarding any article or preparation, or the drugs, or ingredients or substances contained therein, or the curative or therapeutic effect thereof, which is false or misleading in any particular." And that the onus of proof that he had reasonable ground for belief in the truth of any statement by him regarding a remedy, be placed upon the manufacturer or proprietor of such remedy.

(9) That it be a breach of the law—

(*a*) To enclose with one remedy printed matter recommending another remedy.

(*b*) To invite sufferers from any ailment to correspond with the vendor of a remedy.

(*c*) To make use of the name of a fictitious person in connection with a remedy. (But it should be within the power of the Department to permit the exemption of an old-established remedy from this provision.)

(*d*) To make use of fictitious testimonials.

(*e*) To publish a recommendation of a secret remedy by a medical practitioner unless his or her full name, qualifications and address be given.

(*f*) To promise to return money paid if a cure is not effected.

CORRESPONDENCE.

FROM OUR SPECIAL CORRESPONDENTS AT HOME.

SCOTLAND.

Red Cross Hospital at Haddington.

The first Red Cross hospital, as distinguished from military hospital, in Scotland, has been established at Haddington. Troops were hurriedly sent to this district since the outbreak of the war, and a number of the men were overcome by the effects of their forced march. As time had not permitted of previous arrangements for the treatment of such cases, the Medical Officer, through the Territorial Association, on arrival, called upon the Voluntary Aid Detachment at Haddington of the Red Cross Society to supply a temporary hospital. The work was expeditiously and efficiently done by the Detachment. The military authorities have felt the need of a continuance of the institution, and have requested the Scottish Branch of the British Red Cross Society to recognise it as a small auxiliary hospital where cases of illness of a temporary nature might be treated. The Red Cross authorities have visited the hospital and found everything most satisfactory. Members of Voluntary Aid Detachments have been mobilised by the military authorities to assist at the military hospital at Maryhill, Glasgow, and at the hospital at Haddington.

Inoculation of Troops against Typhoid Fever.

Dr. J. J. Graham Brown, the President of the Royal College of Physicians of Edinburgh, and Dr. F. M. Caird, the President of the Royal College of Surgeons of Edinburgh, have issued a communication to the Press on the advisability of inoculating our troops against typhoid fever before sending the men abroad. The high necessity of this procedure, they point out, does not appear to be sufficiently recognised. Yet our experience in the South African War showed that, were typhoid fever to break out among such masses of men, it would destroy many more lives than the fire of the enemy could do. The inoculation ought to be performed at least a fortnight before the men leave this country. To relieve the officers of the Royal Army Medical Corps, already overburdened with work, it is suggested that arrangements could be made that the Fellows of the Edinburgh Royal Colleges would undertake the task of inoculation. The laboratory of the Royal College of Physicians is prepared to supply the necessary vaccine, and when the organisation is complete it is calculated that many hundreds of inoculations could be performed each week.

Largs Medical Volunteers.

An example of patriotism is afforded by last year's ambulance classes at Largs and Fairlie stations of the Glasgow and South Western Railway. Dr. Crow, the teacher, and seven members of the classes have volunteered for service in the Royal Army Medical Corps. Four other members of the class are at present serving in the Territorials, and if the present offer of service is accepted, practically every member of the class will be serving. Two of the class have volunteered for foreign service. Dr. Crow, the instructor, who is a graduate of Glasgow University, is at present a member of Largs Town Council.

The University Session and the War.

It is now officially announced that the classes in the different Faculties at Glasgow University will meet as usual for the session on the dates intimated in the University Calendar. There have been rumours that the classes would not meet as usual, and the intimation now made by the authorities removes uncertainty in regard to the matter. Students of the University to the number of some 700 are joining the Army. Certain of these, or it may have been some students who are not joining the Army, suggested that the Universities, etc., should close down for the winter so that young men remaining at home might not gain any advantage over those volunteering for service. But it is impossible for students to gain military glory without sacrificing some of the time which they had meant to devote to civil pursuits; and it would be unfair to retard in their studies those who are not quite of a military age. The University has promised to give every reasonable consideration to the cases of students going to the war.

LETTERS TO THE EDITOR.

[We do not hold ourselves responsible for the opinions expressed by our Correspondents.]

THE SELECT COMMITTEE AND THE NEWSPAPER PRESS.

To the Editor of The Medical Press and Circular.

Sir,—I make no apology for returning to this subject from week to week. The Select Committee, in its report, has furnished the profession with a weapon which, if effectually used, will enable them to smash that section of quackery—the sale of fraudulent secret remedies—which inflicts most injury on the poor and ignorant. It is a purely humanitarian movement. It will put no money into the hands of the profession, but on the contrary will deprive them of the gains they now acquire through the damage to the public health which quackery gives rise to. I have always urged that the greatest blow which could be inflicted upon grossly fraudulent quackery would be exclusion of its advertisements from newspapers, and I have pointed out that it has been the conduct of the majority of papers standing in the front rank of journalism that has given an unanswerable excuse to lower class papers for following the example of their betters. The majority of the leading papers—there are a few honourable exceptions, led by the *Spectator*—are, and have all along been fully informed as to the nefarious character of the trade they have been abetting; most of them have been alive to the fact now demonstrated irrefutably by the Select Committee that the secret remedy trade is not only fraudulent but "cruel and deadly." It leads to the deaths annually of vast numbers of ignorant people who, trusting in quackery, have let their diseases—curable in an early stage—pass into a mortal phase; it injures many and kills many by the dosage of poisons, such as alcohol and cocaine, which are contained in "heal alls" advertised at stupendous cost. Many leading papers have had medical men as regular editorial contributors. The managers of many first-class papers have allowed these medical editors to stultify themselves in an amazing fashion. They have allowed them ocasionally to write leaders denouncing quackery or a particular class of quacks whose advertisements have not been regularly appearing in their own pages. The newspaper managers were evidently aware that an article at rare intervals denouncing quackery and fraud could only confuse the ingenuous reader and lead him to look upon all the advertisements in such a high-toned paper as above suspicion. Nothing could better serve the ends both of the astute knaves who direct the quack medicine trade and the clever newspaper proprietors who wish to attract advertisements—to make money by any means not involving a criminal charge. I think a fairly clear account of these facts was given in my evidence, which will be, I hope, printed in the separate volume to be issued at once. The paragraph, page 10 in the Report, embodies some of my testimony. After giving shameful examples, the Committee (p. 11 Report) remark that "the extent to which criticism is excluded from the Press may probably be judged by anyone who will take the trouble to see how much attention is bestowed by newspapers upon your Committee's Report." I have kept a look-out such as the Committee suggest, although by no means complete. So far I have observed in the *Times* an able but extremely brief notice of the Report; and in a leading evening paper an entirely garbled and misconstrued article, which ignores the latter and most important half of the Report. On the other hand, I notice still, in spite of the Report which it was their duty to read, that most of the leading journals are still admitting advertisements of secret remedies and sham medicines, the names of which, with an account of their fraudulent character, are printed prominently in the Report. This is surely a scandal of the first magnitude. This may be put an end to by the present campaign. This campaign deserves and ought to gain the utmost support of every medical journal. I can testify to the good that has been achieved during many years by the Medical Press in disseminating knowledge among the profession and, to a far wider extent than might be supposed, among the public. It seems evident to me, now that the Report is out, that we might have achieved medical law reform twenty years ago if those who were devoting themselves to it had been properly backed. There has been, until recent years, an amazing slackness in the British Medical Association; and the *Journal* has been all along allowed to keep the matter in the background, when not pooh-poohing and throwing cold water on the whole enterprise. Here, as a member of the Association, I have the right to interfere, and I propose to attempt it in a fashion which may prove effectual.

I am, Sir, yours truly,

Henry Sewill.

The Old Rosery,
Earlswood Common,
September 12th, 1914.

FORCIBLE FEEDING.

To the Editor of The Medical Press and Circular.

Sir,—Having carefully read Sir Victor Horsley's letter in reply to mine, I am led to infer that he is more concerned about the vote than about forcible feeding. The tenour of the whole of it reveals this, and is what is known in homely circles as "letting the cat out of the bag." Sir Victor shrewdly guesses that I am not particularly interested in woman's enfranchisement, as, indeed, I believe comparatively few men are, but nevertheless I am most interested about "forcible feeding," and am anxious to hear what Sir Victor has to say against it. I think the militant suffragists have themselves proved public indifference to their cause, otherwise the few who have agitated for the vote for forty or fifty years would have found it unnecessary to resort to violence as a means of exciting public interest and attention to their cause, and they not unnaturally mistake the attention which necessarily arises from audacious criminal acts as though that were the same as enthusiasm and interest in their cause. It is certain, however, that prior to militancy they made little advance, and finding that what Sir Victor calls "political evolution" not speedy enough, they adopted what I should call political revolution to gain their ends. Should these be eventually obtained, they cannot claim, like other countries, to have gained it through moral and intellectual forces, but from sheer violence, hence the necessity of adopting all available means for resisting such violence, and this, I take it, is the medico-legal aspect of the question, which I now approach.

Sir Victor Horsley, in his last letter, when criticising the analogy I offered between hanging and forcible feeding makes what is to me the astounding, yet significant statement that "hanging does not deter," presumably meaning that it does not prevent homicide, from which I infer he would have us believe that forcible feeding does not prevent crime, otherwise what object is there in making the statement. Although I am unable at the present moment to name chapter and verse, I am under a strong impression that in some countries where capital punishment has been entirely or almost abandoned, homicide has increased to a degree sufficient to necessitate a revival, or at any rate more frequent administration, of capital punishment. I am, of course, aware, like everybody else, that no penalty in criminal law has entirely abolished the crime for which it was, or supposed to be, adapted. On the other hand, there is not, I think, a shadow of a doubt that legal penalties to a very great degree, and according to their severity, reduce crime to its minimum, otherwise all criminal law, except as a weapon for revenge or vindictiveness, would be null and void

I should like to follow Sir Victor still further in detail, but your valuable space forbids, and he skips over so much ground. I am sorry if I unintentionally misrepresent him in any way, and am glad to give him credit for all he says. I have not, as he suggests, read Hansard (not, by the way, altogether immaculate evidence, judging from recent disclosures), but I have carefully read the debates in the House of Commons as reported in the *Times*, especially the Home Secretary's speech of June 12th last, when he attempted to demonstrate from certain figures that since the passage of the "Temporary Discharge Act" there had been a considerable reduction of crimes, although they had increased in magnitude, and he claimed from these figures the successful working of the Act, but forgot to remind the House that prior to the passing thereof the militants were let out scot free, after, of course, "the attempt to commit suicide"; but so long as these desperate characters are discharged temporarily on these terms, without even being forcibly fed, it is hopeless to expect these crimes to cease. There can be no doubt, I think, that the Home Secretary completely surrendered to militancy when he emphatically stated in the House of Commons that the militants were not to be allowed to die in prison, and I have expressed this view before almost in the same words, because it is obviously impossible to carry out any sentence in the teeth of those who threaten suicide, are not forcibly fed, and who are let loose to the peril of millions upon millions both as to life and property, lest peradventure one or two of these should die in prison. If this is not "straining at a gnat and swallowing a camel," what is? I am, Sir, yours truly,

Clement H. Sers.

Chanctonbury Road, Hove.
September 11th, 1914.

POST-GRADUATE TEACHING IN SCOTLAND.

To the Editor of The Medical Press and Circular.

Sir,—A slight error has crept into your very interesting Educational Number of last week. The British representative on the International Bureau for Post-graduate instruction which met at Berlin was not Prof. Noël Paton, but Principal Sir Donald Macalister.

The post-graduate classes announced to be held as usual about this time in Edinburgh and at the Glasgow Royal Infirmary were abandoned on account of the war. I am, Sir, yours truly,

September 14, 1914. Scotus.

MEDICAL NEWS IN BRIEF.

St. Mary's Hospital Medical School (University of London).

We are asked by Sir John Broadbent, Bart., Dean of St. Mary's Hospital Medical School, to announce that the opening of the winter session will take place as announced, and the work of the Medical School will be carried on without interruption, and all courses of instruction in preliminary, intermediate and final subjects will begin on October 1st, as arranged.

The examination for entrance scholarships will be held on September 21st—23rd.

Owing to the European war and the absence of certain members of the staff and junior students at the Front, the presentation of prizes by Sir Philip Magnus, M.P., will not take place on October 1st, but will be postponed.

Books for the Hospitals.

The War Library have sent out 27,000 books and magazines all over the kingdom in response to appeals from hospitals, and have received an appeal from the Admiralty for ten naval hospitals to which they have not been able to send a full supply, as the demand from all centres is enormous. They therefore beg for further liberal contributions to be sent to the War Library, Surrey House, Marble Arch, London, carriage paid.

The Trade in German Drugs and Chemicals.

The *Times* announces that applications have been received for licences to manufacture in Great Britain the following well-known proprietary articles:—

For "salvarsan," application is made by H. S. Wellcome, of Snow Hill Buildings, London.

For lysol, application is made by Charles Zimmermann and Co. (Chemicals) (Limited), 9-10 St. Mary-at-Hill, London, and by Robinson Brothers (Limited), West Bromwich.

For formamint, by J. E. Griffiths, East Sheen.

For sanatogen, by J. E. Griffiths and by Callard, Stewart, and Watt (Limited), Old Bond Street, London.

For mercedes, by M. Byron, Market Place, Oxford Circus, London.

For aspirin, by Scrubb and Co. (Limited), Guildford Street, and T. A. Keene, High Holborn, London.

In regard to applications for the avoidance or suspension of patents or for licence where, as a rule, plant that is more or less expensive has to be laid down it is possible that the Board may grant perpetual licences, and that the original owner at the conclusion of the war will only be allowed to resume his rights subject to that limitation. It seems most probable that in every case the facts brought before the Board will rule its decision, and it is unlikely that any steps will be taken that will imperil the rights of British proprietors of patents, designs, or trade marks registered in the enemy States.

A Barnstaple Prosecution.

Minnie Jordan, of Instow, was charged, at Barnstaple, under the Infectious Disease Order, with not giving notification of a child suffering from scarlet fever. Mr. R. E. C. Balsdon appeared for the Barnstaple Rural District Council, who prosecuted. The defence offered, through Mr. B. T. James, was that Mrs. Jordan at the time was suffering from rheumatism, and was ignorant of the law. A fine of 2s. 6d. and costs was imposed.

MEDICAL WAR ITEMS.

Fishmongers' Hall at London Bridge is being equipped as a hospital for wounded officers and will be ready in a fortnight.

Sir William Osler and Mr. Donald Armour have undertaken the organisation and equipment of a hospital to be known as the "Queen's Canadian Military Hospital" of 50 beds, which will be under the control of the War Office. The Canadian War Contingent Association has arranged to maintain the hospital for twelve months.

The War Hospital equipped and organised by the Church Army and sent out to serve under the French Red Cross has reached its station in North France. Sir Rickman Godlee, Bart., is the Hon. Medical Adviser of this Hospital.

The first batch of 24 wounded men were received at the Prince of Wales's General Hospital, Tottenham, last week. Soon after their arrival they were visited by Viscount Hill, the Chairman of the Governors, accompanied by Lady Hill.

Considering the dangers of a possible epidemic of small-pox in this country in consequence of refugees from the Continent, it is satisfactory to note that the Local Government Board is exercising all vigilance to safeguard the health of the people.

NOTICES TO CORRESPONDENTS, &c.

☞ CORRESPONDENTS requiring a reply in this column are particularly requested to make use of a *Distinctive Signature or Initial*, and to avoid the practice of signing themselves "Reader," "Subscriber," "Old Subscriber," etc. Much confusion will be spared by attention to this rule.

SUBSCRIPTIONS.

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CONTRIBUTORS are kindly requested to send their communications, if resident in England or the Colonies, to the Editor at the London office, 8, Henrietta Street, Strand; if resident in Ireland to the Dublin office, in order to save time in reforwarding from office to office. When sending subscriptions the same rule applies as to office; these should be addressed to the Publisher.

OVER AGE.—The old Volunteer Army Medical Corps has been swallowed up in the Territorial Force, and its headquarters are now at the York Hospital London, S.W. Yes, the late Mr. Arthur Treherne Norton, C.B., at one time editor of the MEDICAL PRESS AND CIRCULAR, was for many years Colonel of the Volunteer A.M.C., which he brought up to a considerable state of efficiency.

QUÆRENS.—The name, of the dentist who has advertised offering his services free to all recruits, does not appear on the Medical Register, and we believe his claim to the title of "Doctor" is founded on an unrecognised foreign diploma.

AMBULANCE MEDICAL OFFICERS WANTED.

WE are asked to announce that eleven medical men as officers are required to complete the establishment of the 3rd East Anglican Field Ambulance—a home and foreign service ambulance. Applications, stating age, should be sent at once to A. Graham, M.B.Glasg., Captain, Acting O.C., 3rd E.A.F.A., Headquarters, 3rd East Anglian Field Ambulance, Church Hill, Walthamstow, Essex.

ARMY SURGEON (Kent).—If you send us full particulars we may be able to refer you to the very man you want. In spite of the shortage of medical men there are plenty who, by a rearrangement of work, could look after a practice in addition to special work, and some past the age for active service would doubtless be willing to make the necessary effort in order to help others who have answered the call to duty at the front.

WAR PRICES OF DRUGS AND THEIR PREPARATIONS.

MESSRS. GILES, SCHACHT AND COMPANY, the well-known manufacturing chemists, of Clifton, Bristol, write us, that although the various salts of Bismuth used in medicine have greatly advanced since the outbreak of hostilities, they have decided in the interests of the profession and the public not to increase the price of Liquor Bismuthi Schacht, or of any of its combinations. There will be consequently no reason why patients should be asked to pay increased charges for medicine in which these salts are prescribed.

G. H. BROWN (North London).—Bromide of potassium has run up to fabulous prices, and a similar statement applies to other salts of potassium, the main supply of which, to the United Kingdom, has hitherto come from Germany.

Vacancies.

Dublin Joint Hospital Board.—Resident Medical Superintendent. Salary £300 a year, with board and residence. Applications to T. D. Fitzgerald, Secretary. (See advt.)

Hulme Dispensary, Dale Street, Stretford Road, Manchester.—House Surgeon duly registered and fully qualified. Salary £180 per annum. Annual increase £10 to £200, with apartments, attendance, coal, and gas. Applications, with testimonials, at once to Honorary Medical Secretary. (See advt.)

Rotherham Hospital.—Assistant House Surgeon. Salary £110 per annum, with board, lodging, and washing. Applications to the Secretary, G. W. Roberts, 8 Moorgate Street, Rotherham.

Sheffield University: Department of Pathology.—Junior Demonstrator in Pathology. Salary £200 per annum. Applications to W. M. Gibbons, Registrar.

Lancashire County Asylum, Winwick, Warrington.—Assistant Medical Officer Pathologist.—Salary £250 per annum, with board, furnished apartments, attendance, and washing. Applications to the Medical Superintendent.

Cornwall County Asylum, Bodmin.—Junior Assistant Medical Officer. Salary £225 per annum, with furnished quarters, board, laundry, and attendance. Applications to the Medical Superintendent.

Walsall and District Hospital.—Senior House Surgeon. Salary £150 per annum, with board, residence, and laundry. Applications to Frank Inch, Secretary.

Royal Devon and Exeter Hospital, Exeter.—Assistant House Surgeon. Salary £200 per annum, with board, apartments, and washing. Applications to S. S. Cole, Secretary.

Royal Salop Infirmary, Shrewsbury.—House Physician. Salary £110 per annum, with board and apartments. Applications to Joseph Jenks, Secretary.

Appointments.

THOMPSON, ROBERT BUSHEN, M.B., Ch.B.Vict., Public Vaccinator for Brixham (Devon).

WEBB, CHARLES C., B.A., M.B., B.C.Cantab., D.P.H.Vict., Medical Officer for the Yatton District by the Long Ashton (Somerset) Board of Guardians.

WHINCUP, FRANK, M.R.C.S., L.R.C.P., F.R.C.S.Edin., Physician to the Royal Salop Infirmary.

TEMPORARY SURGEONS.—W. A. McKerrow, to the "Vivid," additional, for Plymouth Hospital, as part complement, to date September 10th; A. C. Morson, R. E. Cameron, and F. Nunneley, all to the "Victory," additional, for Haslar Hospital, additional, to date September 11th.

Births.

BRYDEN.—On September 5th, at Elswitha Hall, Gainsborough, the wife of Captain R. A. Bryden, R.A.M.C., of a daughter.

FOSTER-BARHAM.—On August 30th, at Horton Lane, Epsom, the wife of G. Foster-Barham, M.D., of a daughter.

HOLFORD.—On September 9th, at Burton-on-Trent, the wife of Chris. Tredwell Holford, F.R.C.S.E., of a daughter.

HOLROYDE.—On September 6th, at Barnsley, Yorks, the wife of Douglas Holroyde, M.A., M.B., B.C., of a son

KINNIER-WILSON.—On September 12th, at 14 Harley Street, W., to Dr. and Mrs. Kinnier-Wilson—a daughter.

MONTESOLE.—On September 11th, at 1 Cascade Avenue, Muswell Hill, N., to Dr. and Mrs. M. H. Montesole—a daughter.

MOORE.—On September 8th, at Mundens, Malmesbury, to Dr. and Mrs. Reginald M. Moore—a daughter

WILSON.—On September 13th, at 18 College Crescent, Swiss Cottage, N.W., the wife of J. Clark Wilson, M.D., M.R.C.P., of a daughter.

Marriages.

BAYLEY—COLMAN.—On September 12th, at Holy Trinity Church, Cookham, Eric Bayley, M.D.Lond., F.R.C.S.Eng., younger son of E. H. Bayley, Esq., J.P., of Bromley, Kent, to Margaret Colman, elder daughter of Mrs. Charles Hunter, of Cookham, Berks.

DOBSON—ABBOTT.—On September 4th, at S. Barnabas Church, Kensington, quietly, owing to the war, Eric Leonard Dobson, M.R.C.S., L.R.C.P., Honourable Artillery Company, son of Dr. and Mrs. Leonard Dobson, of Kensington, to Rosetta Gertrude Frances, daughter of Mrs. J. White Abbott, of Addison Road, Kensington.

NABARRO—WEBSTER.—On September 9th, at North Walsham, David Nunes Nabarro, M.D., of 107 Harley Street, W., eldest son of the late Jacob Nunes and Hannah Nabarro, to Florence Nora, second daughter of Nathan Bell Webster, of North Walsham.

THACKER—DALE.—On September 1st, at St. Giles', Cambridge, C. R. A. Thacker, B.A., B.C., of Downing College, to Dorothy Dale, Fellow of Newnham College.

Deaths.

BARNES.—On September 6th, Dorchester, Lt.-Col. R. W. Barnes, R.A.M.C. (retired).

CLARK.—On September 9th, at 81 St. George's Road, S.W., James Edward Clark, Lieut.-Col., late Brigade-Surgeon A.M.S., aged 77.

GASKELL.—On September 7th, at "The Uplands," Great Shelford, Walter Holbrook Gaskell, M.D., F.R.S., aged 66.

HAYES.—On September 8th, at Fairfield Lodge, Farnham, Surrey, Surgeon-Major William Henry Hayes, late I.M.S. and Deputy Commissioner of Singhboom, Bengal, India, aged 81.

MAYBURY.—On September 6th, suddenly, the result of an accident, Horace Mansell Maybury, M.D., of 27 Almeida Street, Islington, in his 67th year, third son of the late William Augustus Maybury, M.R.C.S., and Clara Maybury, of "Cedar Lodge," Frimley, Surrey.

STEELE-PERKINS.—Killed in action, with the British Expeditionary Force, Lieut. Cyril S. Steele-Perkins, The King's Own (Royal Lancaster Regiment), aged 27, only surviving and dearly beloved son of Dr. and Mrs. George Steele-Perkins, 30 Weymouth Street, Portland Place, W., and Kingsdown, near Deal.

TANNER.—On September 8th, at his residence, 8 Glenmore Road, N.W., John Tanner, M.D., etc., late of Queen Anne Street, W., suddenly of heart failure, in his 79th year.

HULME DISPENSARY.

DALE STREET, STRETFORD ROAD, MANCHESTER.

WANTED, a HOUSE SURGEON duly registered and fully qualified. Salary £180 per annum. Annual increase £10 to £200, with apartments, coal and gas. Applications, with testimonials, at once to Honorary Medical Secretary

THE MEDICAL PRESS AND CIRCULAR.

"SALUS POPULI SUPREMA LEX"

VOL. CXLIX. WEDNESDAY, SEPTEMBER 23, 1914. No. 13.

NOTES AND COMMENTS.

Panel Practice and the War. PANEL practice shares in the general disturbance of occupations due to the war. Many medical men thus engaged have gone to the front and have had to leave their work to *locum tenentes* or to friendly brother practitioners. It is pleasant to find that the pathway of these patriots has been rendered as smooth as may be by the local Insurance Committees. From various parts of the Kingdom it is reported that the posts are to be kept open for them after the war by doing away with the formality of legal signing of a fresh contract at the outset of 1915. There can be little doubt that the sacrifice involved in throwing up practice for Army service during the present crisis falls with especial severity upon the medical man who is engaged more or less in panel practice. The shortage of medical men renders it extremely difficult for him to secure a qualified man to take over the duties temporarily.. On the other hand, while on war service he will receive 24s. a day and rations, by no means too large a scale for the highly skilled and experienced service that is rendered. In some quarters the amount has been stigmatised as extravagant, but the Army Medical Department has acted wisely in the matter, for a smaller rate would have rendered it absolutely impossible for not a few men engaged in private practice to run their practice while abroad, especially now that the fees for *locum tenens'* work have been so considerably advanced.

Medical Examination of Recruits. THE fact that an enormous number of recruits are being examined medically at half-a-crown a head reflects little credit upon the business methods of the War Office. At one time it is known that in Whitehall and other recruiting centres in London queues of 200 to 300 men, and more, were waiting for each medical officer. A simple sum shows that 200 men at half-a-crown per head means £25—a sum that seems out of proportion for a day's work. The principle of paying for individual examinations is unsound, and when applied to hundreds of thousands of recruits is inexcusable. A business firm would engage an army medical officer to give his whole services at a stated salary, which would cover medical examinations of the kind under notice. The worst of it is, that the whole of this inexcusable burden is thrown upon the overburdened taxpayer, at a time when every penny is needed to meet the enormous expenses of a great war. It is to be hoped that Lord Kitchener will find time to attend to this detail, and stop so lamentable a waste of money. The Army Medical Department has shown marvellous efficiency in many directions. It has met the sudden strain upon its resources with a readiness, a completeness and an efficiency that have hitherto been unknown in the annals of our country. With a little more time the machinery and the art of the medical examination of recruits will also doubtless be placed on a satisfactory footing.

The Case in the Provinces. MEANWHILE, lest readers should think too much has been made of a small matter, the following letter is appended. It should be borne in mind that it is written from the provinces, where the number of recruits is smaller than in London:—

AN APPEAL TO DOCTORS.

SIR,—A large number of recruits are daily examined by doctors. For each examination we are paid half-a-crown. A few of us are doing whole-time work, and earning enormous sums, while the majority give part of their time. When all the circumstances are considered, such as the nature of the examination, the assistance received, the concentration of recruits in one place for examination, etc., all of which render medical examination both expeditious and simple, it is not too much to say that 1s. per case would be fair remuneration.

Most of us can afford to give four-fifths of each half-crown, if not all, to the Prince of Wales's Fund. We earn from £6 to £8 per day for a whole day, down to £1 or so for one or two hours.

If the whole-time men gave half of this entirely adventitious income, and the part-time men two-thirds up to the whole of their receipts, the fund would be swelled considerably, and not one of us would be a penny the worse.

Yours, etc.,
M.B., CH.B.

September 7th, 1914.

The War Office and Voluntary Hospitals Abroad. IT appears to be the policy of the War Office to discourage offers of voluntary hospitals for foreign service. At the beginning of the war the British Red Cross organisation made arrangements to supply Red Cross units to the forces abroad in rapid succession. Up to the present only two such units have been sent. Each unit consists of ten surgeons, ten dressers and twenty nurses. A party of this kind, selected and organised by a competent chief, ought to be able to give invaluable service as the staff of a base hospital of, say, two or three hundred beds. One of the units sent was so unfortunate as to fall into the enemy's hands at Brussels, but is since free. The other is said to be working at Rouen. Two other units were ready to depart a couple of weeks ago, but were suddenly countermanded. It is due to the public, as well as to the members of the staffs of these units, that the reason for this sudden change of plan should be declared. The members of the surgical and nursing staffs had put themselves to considerable inconvenience in ridding themselves of their responsibilities at home, and to some expense in preparing personal outfits. They are quite willing to put up with this if there were any legitimate reason for it, but they have some right to know. We hope that the suggestion which is freely bandied about of some friction between Devonshire House and the War Office is without foundation. The public which is subscribing large sums for Red Cross work should make sure that their good intentions are not frustrated by any lack of tact on the part of those responsible for the administration of the funds. We would like to believe that the organisation of the Royal Army Medical Corps is so efficient that there is no need for outside help, but that additional hospital work on the Continent is needed is, we think, clear. We cannot believe that soldiers dangerously wounded would be brought in such numbers to Netley and other home hospitals if there were adequate means of treating them abroad. The two units which have been countermanded would have been able to save a considerable number of such men a long and painful journey.

Soldiers' Socks.

In our last issue the important part played by socks in the soldier's outfit was discussed in these columns. It was pointed out that they should be without darns and made of good woollen worsted. Since then reports have been published by correspondents at the front, describing the pitiable condition of some of the soldiers who had been engaged in the prolonged days of fighting and forced marching entailed by the falling back of the Allies forces from Mons to Paris. The men in question were said to be absolutely crippled by galled feet, due to wearing coloured socks continuously for many days together. Aniline colours are much used for dyeing hosiery, and their irritant action upon the skin is a well-known fact. Moreover, coloured socks that might be tolerated under the conditions of ordinary civilian life may have a very different effect when worn night and day and kept closely applied to the feet, often when bathed in sweat or sodden with moisture, to say nothing of the warmth engendered in boots which are worn night and day. By all means let the soldier wear white or grey worsted socks, of the best workmanship and material he can obtain.

Medical Treatment of Tuberculosis.

Apart from specified bacterial therapy, there has been in the past few years a revived interest in the drug treatment of tuberculous diseases. Several drugs have been recommended as if they were specific. Iodine, in one form or another, is the active principle in many of the preparations. Thus, the treatment associated with Dewar's name consists chiefly in the intravenous injection of iodoform. "Dioradin" is alleged to contain "peptonised iodine." Dr. Laird, of Sligo, has reported good results from the use of a mixture in which sodium iodide appears to be the most active constituent. In another direction, Dr. Minchin, of Dublin, has, in our columns and elsewhere, reported marked success resulting from the use of allyl sulphide, the active principle of garlic. His results have been strikingly confirmed by certain American experience recently reported. (*a*) Dr. McDuffie, of New York, has clinically investigated a great number of methods of treatment recommended by various authorities. Of these, only two gave any suggestion of having any specific action on the tubercle bacillus—garlic and mercury. Of the two, McDuffie gives first place to garlic. It certainly seems as if this drug deserves a fuller study than it has yet received from pharmacologists and clinicians.

The Medical Roll of Honour.

The fighting of last week has been fast and furious. The Germans, in their endeavour to stop the disastrous retreat of their right wing, have retired slowly and have delivered repeated fierce assaults on the advancing Allies. The casualty lists have been enormous, and the battle far greater than any yet waged by mankind. The official reports from September 18th to 20th give the names of 44 officers killed in action, 105 wounded, 17 missing, and four unofficially reported to be prisoners of war. Killed: Capt. F. Forrest, R.A.M.C.; Wounded: Lieut. C. Dalton, R.A.M.C.; Lieut. E. J. Wyler, R.A.M.C.; Officers previously reported missing who have now reported themselves: Capt. B. Dwyer, R.A.M.C.; Major F. S. Irvine, R.A.M.C.; Officers unofficially reported prisoners of war; Capt. W. K. Beaman, R.A.M.C.; Major W. R. Fry, R.A.M.C.; Major J. C. Eames, R.A.M.C.; Officers previously reported missing, but now officially reported prisoners of war: Lieut. P. P. Butler, R.A.M.C.; Major P. H. Collingwood, R.A.M.C.; Capt. W. Egan, R.A.M.C.; Lieut. S. M. Hattersley, R.A.M.C.; Capt. J. P. Lynch, R.A.M.C.; Capt. H. E. Priestly, R.A.M.C.; Lieut. L. M. Routh, R.A.M.C.; Capt. A. A. Sutcliffe, R.A.M.C.; Capt. A. C. Vidal, R.A.M.C. It is further reported that Lieut. A. Keith Armstrong has died of his wounds.

LEADING ARTICLES.

ALCOHOL AND THE WAR.

The great war in which the British Empire is unhappily embroiled is likely, for a long time to come, to overshadow and disturb the domestic life of the nation. In most of its essentials it is peculiarly a conflict conceived and carried out on scientific principles. That proposition is sustained by a consideration of the degree of precision to which the movements of large bodies of troops has been brought, and the advances in commissariat, field defences, long-range weapons, field telegraphy, explosives, aviation and other details of modern warfare. No less great has been the amount of science, that is, the application of the results of reasoned observation and of ascertained principles and experience, to be seen in the Army Medical Service. Asepsis is now a prime consideration in the first treatment of wounds in the fighting line, so that a very large proportion of those who are not killed outright are likely to make a speedy recovery. Field and camp sanitation is now attended to by specially trained men, and the camp diseases, notably enteric fever, are no longer likely to play havoc amongst our troops, as they did so recently as during the Boer War. Among these and other changes not the least significant is the disuse of alcohol in our own army. Not only has alcohol been strictly relegated to a subordinate position amongst medical comforts and necessaries, but its disuse has been urged upon the troops by

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(*a*) "Interstate Medical Journal," No. 3, 1914.

Lord Kitchener, and in garrison and other towns the public houses have been shut or closed at an earlier hour than that which prevailed before the war. Upon physiological grounds it will be generally admitted by medical men that soldiers exposed to the hardships of a strenuous campaign, so far from increasing their endurance will actually diminish it by the use of alcohol. A similar phase of temperance has been observed in the French and Belgian armies. Complete abstinence, moreover, has become the rule amongst our allies, the Russians, who have abandoned their *vodki* to a man. On the other hand, the German soldiers appear to have indulged to the fullest extent the drinking habits which characterise them as a nation. It has been shown by the testimony of responsible war correspondence and confirmed by official investigation and by a mass of collateral evidence that drunkenness and crimes that are a disgrace to civilisation have marked the trail of their march through Belgium and France. The contrast between the temperate Allies and the intemperate Germans to a certain extent may be taken to constitute an experiment upon a gigantic scale of the advantages and disadvantages of alcohol to the soldier on active service. It may be hoped that the lessons of the war in this matter may not be lost upon the legislature. That which is good for the troops in war time, will be equally good for them in the piping times of peace. Why should not the hours of opening of the public houses be curtailed throughout the length and breadth of the Empire, both in the morning and at night? Under what circumstances can it be excusable for anyone to imbibe alcoholic liquors in the early morning or, on the other hand, what hardships would be inflicted on the Londoner by closing the public houses at the same hour now enforced in the large provincial towns? For that matter, why should not ten o'clock be late enough as the closing hour in town and country? The plain fact of the matter is, that we are, as a nation, still in need of sound temperance legislation. The disuse of alcohol by our troops in time of war affords a striking proof of the attitude of a branch of the administrative government, one chief duty of which is to study and enforce the principles that lend to the fitness of the individual soldier.

CURRENT TOPICS.

Medical Attendance upon Dependents of Soldiers and Sailors.

In view of the offer recently made to the Government by the British Medical Association and the Pharmaceutical Society of Great Britain of cooperation in a scheme for providing medical attendance, with medicine and appliances, to those dependents of soldiers and sailors on active service who are in poor circumstances, it is announced that a sub-committee of the Central Committee for the Prevention and Relief of Distress has been set up for bringing the scheme into effect. The constitution of the sub-committee is as follows:—The Duke of Devonshire, Chairman; Dr. C. Addison, M.P., Parliamentary Secretary of the Board of Education, Vice-Chairman; Dr. Alfred Cox, Medical Secretary of the British Medical Association; Mr. W. S. Glyn-Jones, M.P., Parliamentary Secretary of the Pharmaceutical Society; Dr. J. A. MacDonald, Chairman of Council of the British Medical Association; Dr. B. A. Richmond, Secretary of the London Panel Committee; Mr. S. P. Vivian, Assistant Secretary of the National Health Insurance Commission (England); Mr. J. Smith Whitaker, Deputy-Chairman of the National Health Insurance Commission (England) and member of the National Health Insurance Joint Committee; Mr. Edmund White, President of the Pharmaceutical Society; Mr. W. J. U. Woolcock, Secretary of the Pharmaceutical Society; Mr. J. A. Barlow, of the Board of Education, and Mr. J. Rae, of the National Health Insurance Commission, will be Joint Secretaries. It is expected that the sub-committee will shortly make a further announcement on the subject, and will as soon as possible inform local relief committees of the names of those doctors and chemists who offer their services under the scheme and of the machinery for putting it into operation. The executive committee of the Prince of Wales's Fund have decided to defray the cost of medicine and appliances supplied, so that the benefits of the scheme will be available entirely free of cost. The question as to whether indigent refugees might be included in the scheme might well be brought up for consideration by the sub-committee, the offices of which are at Wellington House, Buckingham Gate, S.W.

Infant Feeding and Proprietary Foods.

An interesting report has recently been made to the Local Government Board upon the use of the various proprietary foods for infant feeding. Dr. F. J. H. Coutts deals with the preparation, distribution, and composition of these foods which have multiplied so extensively of late years that it is becoming increasingly difficult both for practitioners and also for parents to make a suitable choice of the right one in any given case. It is a matter of common experience that a patent food or milk substitute which suits one infant will not answer at all for another, and yet it is claimed by so many that So-and-So's food is the "most nutritious known," or that it is "complete in itself," and so on. Dr. Coutts concludes from the evidence reviewed that a large number of these preparations are not suitable for the feeding of infants under seven or eight months of age because of (*a*) the presence of starch in greater or less amount; (*b*) the presence of excess of carbohydrates—starch or sugar—in relation to the protein and fats; (*c*) deficiency in fat. The proposal that each packet of food sold should contain its analysis and that it should be certified by the Government as being non-injurious was suggested by the National Conference on Infantile Mortality a few years ago. It has also been suggested that all infants' foods containing, say, more than 25 per cent. of starch should bear a statement to the effect that the food in question should not be given to infants under the age of seven or nine months, except upon the advice of a medical man. There are difficulties, however, in the carrying out of these proposals for so much depends upon the way in which the food is made in bulk and also on the manner in which it is prepared for immediate use. The appearance of actual misleading statements upon labels, when it is proved that such exist, should, of course, be prevented by further legislation. The second portion of the report deals with the analysis and composition of some proprietary foods by Mr. Julian L. Baker, F.I.C., who divides these articles into five classes, containing varying proportions of unaltered or altered starch. The low percentage of fat in many of these foods renders them, at best, poor substitutes for mother's milk. There can be no doubt that before embarking upon a course of infant feeding with any proprietary food the greatest care should be taken to see that in composition and digestibility it is suited to the age of the child. Otherwise nothing but disappointment and failure can be the result.

Invasion.

England is at present exerting all her strength to make ready for an invasion that may never take place. But there is another invasion which may be fraught with little less danger, and which has already begun. We refer to the foreign refugees that are pouring into the country. Now, we would be the last to shut our country's gates to the wanderer left homeless and hopeless by the missionaries of the Kaiser's cave-man culture, but we want to look at the facts without the pale spectacles of pity. Alien immigration does not cease to be a problem because we are sorry for the immigrant. Foreigners are not less liable to introduce disease into these islands, now that they are fighting side by side with our troops than they were before. These are self-evident facts, and we cannot afford to ignore them. The economic aspect of this sudden influx of mostly unskilled labour is not our especial concern, and we leave the matter to be discussed in quarters that are more directly affected. For ourselves there is a very present fear of small-pox before our eyes. The iconoclastic efforts of the anti-everything cranks have succeeded in making our vaccination laws a thing of no account in many parts of the land. We hope that these people will not reap their deserts. But great care is needed. We look with confidence to the arbiters of our health to take every precaution against the invaders whose weapons are not rifles, but their own innocent but no less hungry stomachs, and such casual bacteria as they may have collected. The danger is no less great because it is unwitting. Let us, by all means, show the utmost hospitality to our unfortunate guests. Let us also take care that neither they nor ourselves suffer by preventable disease of which they may be the innocent carriers.

Salvarsan in Non-Syphilitic Diseases.

The potency of salvarsan is such that its effects in diseases other than syphilis have been regarded by many authorities as almost specific. Thus, beneficial results have been obtained by the administration of salvarsan in tuberculosis, dysentery, relapsing fever and severe anæmia. An interesting paper was read at the recent annual meeting of the American Medical Association by Dr. William H. Best, (*a*) of Brooklyn, who has been conducting an investigation into the action of "606" in many different diseases. Many skin affections, such as dermatitis herpetiformis, erythema multiforme, lupus vulgaris, mycosis fungoides, pemphigus, pityriasis rubra, psoriasis, and tuberculides responded quite well to the drug, and in some cases the results obtained were most gratifying. Those diseases caused by a definite micro-organism, or in which a microbic origin may reasonably be surmised, were benefited by the treatment, while systemic disorders in which arsenic is often beneficial were generally influenced in a like degree. Salvarsan is certainly a specific in diseases caused by any variety of spirillum, such as filariasis, frambœsia, relapsing fever and Vincent's angina. As an adjuvant in the treatment of those diseases in which a speedy tonic action is desired, as in lupus and leprosy, salvarsan has also been found useful. It must not be supposed, however, that salvarsan is a panacea for every disease under the sun, for its limitations and dangers are such that none but the most unwary would dream of using it except where it is specially indicated.

The Lost Inheritance.

America is a comparatively new land, but she has some old traditions—as old, at least, as her discovery. We are sorry to see that one of the dear old tales is being repudiated. It is sad to see the stories we learnt at our professor's knee discredited. Yet so it must be. Truth will out even among scientists, and we must bear the brunt. We always thought that syphilis came from America; that the dauntless Spaniards returned to Spain with golden trophies and a coppery rash. The legend of Columbus and the spirochæte was as real to us as that of Bruce and the spider, and more probable. It has had its day. We have read a long article on the subject, and stand convinced. It seems a paradox, but a galaxy of evidence has been produced to show that the *Morbus gallicus* had its origin in France. We cannot go into the pros and cons, but the arguments seem irrefutable. It makes one feel disappointed. The pale spirochæte has been the evil means of much good work. Clinician and scientist have wrought their best for its extinction. Its machinations have encouraged the best efforts of the medical profession. Around its destruction we have erected a tower of saving strength. And now America disowns it. America says that it was known and recognised in France and Spain in the thirteenth century, and even alleges that its ravages have been discerned in the bones of Egyptian mummies reft from the tombs of kings. So be it. We cannot stand in the way of truth. One by one our old beliefs desert us, smashed to atoms by facts whose only justification is that they are. We cannot fight against them. All we can do is to believe the latest certainty till some day a later and more certain one comes to set up again the images we have lost.

Poliomyelitis in Lancashire and Westmoreland.

An interesting report has recently been made by Dr. H. A. Macewen to the Local Government Board upon the prevalence of poliomyelitis in certain parts of Lancashire and Westmorland in the autumn of 1913. No very definite conclusions have been arrived at as to the mode of spread of the disease as a result of the inquiry, but several suggestive facts were elucidated with regard to its epidemiology. In one part of Barrow there was a fatality of thirty per cent. Paralysis was a marked feature of the cases, both legs being affected in twelve of those reported. A peculiar white dust produced in connection with the deposition of slag from local iron and steel works, resembling sifted sugar, was found in a certain district of Barrow. Neither milk nor other articles of diet appeared to have any influence in the spread of the disease, but a large number of flies were said to be in the houses within the affected area. Children appear to be more prone to poliomyelitis than adults, though in some of the Lancashire districts and in Westmorland, as well as in other epidemics investigated in

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(*a*) *Journ. Amer. Med. Assoc.*, Aug. 1st, 1914.

England three or four years ago, adults have been attacked. In some instances the children were said to have had scarlet fever or mumps just before poliomyelitis set in. The possibility of the communication of the disease from direct personal contact has been considered, but is dismissed as lacking sufficient evidence. Dr. Macewen concludes by stating the hypothesis that the number of persons who are susceptible to attack by poliomyelitis is very limited indeed.

PERSONAL.

The King and Queen, with Princess Mary, on the 15th inst., paid a private visit to Netley Hospital, Southampton, where some 500 wounded and sick soldiers are under treatment. Their Majesties alighted at the hospital station, and were received at the entrance by Colonel D. J. R. Lucas, C.B., R.A.M.C., the officer in charge, and other officers, and the Matron.

On the 14th instant, H.M. the Queen of the Belgians visited the hospital equipped by the British Colony in Antwerp in the building lent by the Missions to Seamen, and was received by Sir Francis Villiers, the British Minister. Her Majesty shook hands and talked with every wounded soldier, and the ladies of the Committee and full medical and nursing staff were afterwards presented to the Queen.

Miss E. C. Houlten, M.B.Lond., has been appointed a member of the Women's Medical Service of India.

The late Surgeon-General Sir Anthony Dickson Mome, K.C.B., V.C., has left estate of the gross value of £24,607.

Dr. Edward Lewis, of Anglesey, has been appointed Medical Officer for the County of Glamorgan under the Mental Deficiency Act.

Deputy Surgeon-General O. W. Andrews, R.N., Medical Officer of Health for Gloucester, has been appointed to Portsmouth Dockyard.

Dr. Arthur Burrows, M.D.Lond., has been appointed Radiologist to the Manchester and District Radium Institute, the Royal Infirmary, Manchester.

Dr. James Reid, of Portsoy, was the recipient the other day of a suitable presentation in token of the esteem and respect in which he is held in the district.

Dr. Charles Tanfield Vachell, M.D., aged 66, of 11, Park Place, Cardiff, late Consulting Physician to the Cardiff Infirmary, left estate of the gross value of £21,793.

Dr. Harold Scurfield, M.O.H. of the City of Sheffield, has accepted the invitation of the Council to become Professor of Public Health in the University of Sheffield.

We are asked to announce that the dinner of the past and present students of King's College Hospital will not take place on October 2nd, as arranged, on account of the war.

Mr. G. H. Makins, C.B., F.R.C.S., Surgeon to St. Thomas's Hospital, has gone to France to join the staff of the Principal Medical Officer of the Expeditionary Force as Consulting Surgeon.

Dr. A. C. Farquharson, at present serving as Captain R.A.M.C.(T.F.), 6th Durham Light Infantry, has been unanimously adopted as the prospective Liberal candidate for the North Leeds Division.

Sir Wilmot Herringham, M.D., Vice-Chancellor of the University of London, will deliver, at 4 p.m., to-day (Wednesday), the public opening address of the session at King's College, on "The Universities and the War." The Principal of King's College will take the chair.

A handsome three-light memorial window to the late Dr. W. B. M'Quitty, of Belfast, was dedicated the other day in St. Jude's Parish Church, Belfast, by the Lord Bishop of Down and Connor and Dromore.

The Royal Sanitary Institute have arranged a course of lectures and demonstrations on first aid, personal hygiene and camp sanitation at their premises in Buckingham Palace Road to 750 men of the Field Ambulance detachments.

Miss Fanny Cresswell Paris, daughter of the late Dr. John Ayrton Paris, formerly President of the Royal College of Physicians, and author of "Pharmacologia," celebrated her 100th birthday at her residence at Yarmouth, Isle of Wight, last week.

Among the medical profession volunteering for active service at the front are the whole of the members of the staff of the Lister Institute, London, amongst them being Dr. William J. Penfold, third son of the late Mr. J. B. Penfold, Brampton, who goes out in charge of the enteric fever hospital.

A native of Bury and a Vice-President of the Association of Lancastrians in London, Lieut.-Col. Thomas Horrocks Openshaw, Surgeon to the London Hospital, has been appointed Principal Surgeon to the base hospital now being erected at South Queensferry, Fifeshire, for the reception of sick and wounded naval officers and men.

At a Court of Governors of St. Bartholomew's Hospital the Acting Treasurer reported that an offer to place a wing of the hospital (174 beds) at the service of the War Office for the reception of sick or wounded soldiers had been accepted. The hospital had undertaken to bear all expenses of maintenance, and the wing had been made ready for occupation at the beginning of the month, but up to the present no patients had been received.

CLINICAL LECTURE
ON
THE TREATMENT OF ANKYLOSIS BY THE FORMATION OF NEW JOINTS. (*a*)

By A. H. TUBBY, M.S.Lond., F.R.C.S.,
Surgeon, Westminster Hospital, etc., etc.

[Specially Reported for this Journal.]

The subject which I have chosen for the lecture to-day is one which deals with very modern surgery, and requires very careful examination. Up to within perhaps the last nine years we generally thought that the best results which could be achieved in the cure of joint disease were by means of a stiff joint after all the disease had settled down. We have now reached, or have attempted to reach, a stage beyond that, and we have come to the conclusion that after all the disease has subsided for some time, and all traces of it have gone, we should then make an attempt to re-fashion the joint and restore the use of the part. But, like all other new procedures, it is one which must be approached with very great caution, and, indeed, it is very difficult to achieve satisfactorily. As you know, ankylosis is of two kinds—the fibrous and the bony kind, and it very often happens that the fibrous ankylosis gives sufficient movement of the joint to make it thoroughly useful and to render it unnecessary to interfere.

In the case of the lower limb, good, firm, bony ankylosis is a very satisfactory result, and it is difficult to make up one's mind and come to a decision as to whether ankylosis of the lower limb shall be interfered with or not. Now with regard to the methods of treating ankylosis, they are practically three, with numerous sub-divisions. One is by excision of a portion of bone, and trusting to obtain a false joint such as sometimes unfortunately follows a fracture. The second method is by what is called the interposition method—interposing some material between the bone-ends—which will take the place and act as a substitute for the synovial membrane. The third method is total transplantation of a joint from one subject to another. Now, I may say at once with regard to the last method that I have had no practical experience of it, but there are some satisfactory results which have been published lately, and perhaps I may have time to make some reference to them.

With regard to excision of bone, you may take it as a broad statement, and as a very true one, that you cannot hope to obtain anything like a perfect new joint by this method—in fact, as a rule, excision of a portion of the bone is a complete failure so far as the making of a new joint is concerned. We therefore turn to what are called the "interposition" methods, and they are classified according to the substance which is interposed between the bone-ends. You may use mineral substances such as gold, silver, platinum, or plates of ivory may be interposed, but the satisfactory retention of these presupposes aseptic tolerance which is not always present. Too often it happens these foreign substances are extruded, and the last condition of the patient is worse than the first. Therefore I do not think I need occupy time in a discussion of the question whether ivory, gold, silver, platinum, or india-rubber should be put in because other and more satisfactory methods have been found. With regard to interposition methods the material used may be one which has been living and has been rendered sterile and for a time non-absorbable; such a material is cargile membrane, as is also that new material which has been brought into notice by Professor Baer, of the Johns Hopkins University, which is obtained from the submucosa of the pig's bladder. Both these materials are prepared so that they are entirely sterile, and they are further hardened so as not to be immediately absorbed, but are inert for some days. Then the process of absorption commences. You can so harden them that some kinds are absorbed in ten days and some remain non-absorbable for thirty days or even longer, but eventually they disappear. These materials act as an envelope or covering for the bone-ends, and help to form the synovial membrane. Other materials which have been transposed, generally from the patient himself, are living materials.

Now the most useful thing of all perhaps is a muscular flap. For instance, if you are dealing with a case of ankylosis of the elbow you may interpose a muscular flap; or instead of muscle you may use some of the subcutaneous fat, or a combination of fascia or fat, or you may follow the latest method which has been introduced by Professor Putti, of Bolgna and take a large flap of fascia, especially in the case of an operation on a knee joint, completely free the fascia, and transplant it bodily into the joint. Now, experience shows that these living transposed and transplanted flaps answer extremely well. In the case of a muscular flap we now know how it is that it acts in the formation of new synovial cavity. In order to understand it, I must ask you to consider what takes place in the case of a false bursa. When irritated the subcutaneous fat becomes absorbed, and large spaces form in the connective tissue. Gradually these connective tissue spaces run together into one cavity, which forms a false bursa. You ask how all this comes in with regard to muscle. Muscle, when transplanted, undergoes fatty degeneration extremely rapidly, and in that fattily degenerated muscle a false bursa or a synovial cavity forms. The muscle selected is always near the joint, so that it is very easy to interpose it between the bone-ends. It is further well supplied with blood, and stands handling very well; so that of all living substances that may be interposed between the bone-ends muscle is probably the most satisfactory; after that come the fascia lata together with some fat, and then large plates of subcutaneous fat, in order of usefulness. If, however, you make a large flap of subcutaneous tissue you

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(*a*) Delivered at the London Polyclinic and Post-Graduate College, July, 1914.

deprive the skin of its nourishment, and it may perish. Other materials have been tried. Periosteum, for example, has been transplanted into the knee joint, but the results on the whole do not seem to be very satisfactory.

Lastly, it was thought quite rational if we used transplanted cartilage. For this purpose costal cartilages were chosen, and I have done two operations with rib-cartilages, which I can tell you were unqualified failures, for several reasons. One is that the cartilage itself is a non-vascular structure, not supplied with blood-vessels, but is permeated by lymph channels. As you know, the cartilage gets its nourishment from the periosteum, and when you take cartilage from the chest and cut it up into small bits you simply put into the joint a number of small pieces which have to depend for their nourishment upon exuded blood; and as a matter of fact most of these pieces of cartilage die. The second difficulty is in fixing the small pieces of cartilage to the bone. Another reason why cartilage is a failure is that when it begins to degenerate, as it must do when transplanted from its original position, it undergoes fibrous change and merely forms fibrous tissue which connects the two bone-ends. So, for these reasons costal cartilage should never be used for the purpose of curing ankylosis. Other materials employed are peritoneal membrane, and substances of that nature, but unless properly and thoroughly prepared they undergo such rapid disintegration and such rapid absorption that they disappear before the bone-ends have had time to become covered.

Now we come to the consideration of the purpose, and how, and when, and why this somewhat advanced operation should be undertaken. The affections which give rise to ankylosis are comparatively few, and they are well recognised. One of the most common is injury. Another cause is tubercular disease of the joint. A third is septic, a fourth is gonorrhœal trouble, and these really are the main causes which we meet. It is for the sequela of these four conditions that the question of the restitution of the joint should be carefully considered, and I may say at once the most favourable is traumatic ankylosis such as occurs, for instance, from a severe fracture of the elbow or the knee-joint. Next in order, as favourable, is perhaps gonorrhœa; then perhaps ankylosis following after septic arthritis. The difficulty is in determining whether an operation should be undertaken for post-tuberculous ankylosis. Let us consider the broad points on which we should approach such an operation. The first fact to take into consideration is the age of the patient. Everyone knows that up to the age of about 18 years the epiphyseal lines are still active. If we have to deal, for example, with a knee-joint which has become fixed, in order to rectify the ankylosis we may have to take away so much of the bone that we may encroach upon the epiphyseal lines, then the operation should not be undertaken. In a broad way we can determine this question by having stereoscopic X-ray photographs taken, and we can form an estimate of how much bone will require to be removed and if the epiphyseal line will be encroached upon; if it is on no account should the operation be done. It is considered that the best and most favourable ages for ne-arthrosis are from 18 to 30, as the subject is then in the period of most active life. It is the time when injuries are most prevalent, and it is when the patient wants to use his limb to the best advantage. After 30 years of age, the tissues do not tolerate interference very well, and the transplanted portions may break down.

We must next take into consideration what previous malady the patient has had. If, for example, a patient has rather a bad traumatic ankylosis, providing his general health is good, he will, other things being equal, afford a good opportunity for the operation. On the other hand tubercular patients do not bear the operation well, and they do not heal up well. Very often the superficial tissues have been undermined by tuberculosis, the skin is scanty and scarred, and interference with it may be followed subsequently by sloughing. So, therefore, except in certain cases of hip disease, one would prefer to put tuberculous ankylosis in the category as unsuitable for the operation. As regards gonorrhœal and septic ankylosis, operation is not contraindicated if the disease is quiescent or has subsided; and, further, you must make sure and ascertain that the blood is quite free from infective organisms. The great point is to be quite sure that there is no danger of setting disease up again. You can ascertain this by a consideration of the history of the case, by X-ray photographs, when you can see at once if there are any tuberculous foci, and by a very careful examination of the blood to see if any germs are circulating in it.

Having so far cleared the ground you may more closely approach your subject. An important point is the occupation of the individual. If he is one who requires to regain skilled movements, especially of the upper extremity, then I consider an operation on the elbow-joint, for instance, or it may be on the shoulder, is quite justifiable. If, on the other hand, there is ankylosis of the lower extremity and the man has no pressing necessity to be constantly bending his knee, as, for example, in the case of a sailor who is going up the rigging, then it is generally better to leave the knee joint alone, because a firm, straight, stable knee is far better than a rather painful, partially-moving joint such as you may obtain by these new methods of treating ankylosis; and therefore you must take into consideration not only the profession, but the function of the part which you wish to restore, which in the lower extremity is stability and strength in walking. The function of the upper extremity is not so much firmness as the execution of fine and delicate movements. Therefore many more operations for ankylosis have been done in the upper extremity than in the lower, until recently. The next point you must take into consideration before you embark on an operation is this—you should ascertain the exact state of the joint as far as possible. This you can do by means of X-rays, which tell you whether the ankylosis is bony or fibrous or whether partially bony and partially fibrous. You can also note the extent of the adhesions in the joint by injecting the joint with an inert gas, such as nitrogen. Then you should decide what material you will use. If it is a knee or elbow-joint in which there has been violent septic inflammation of the tissues, and excessive destruction of them, together with considerable loss of the skin, then it would perhaps be more satisfactory to use cargile membrane or pig's bladder, rather than attempt to transplant muscle.

Before doing the main operation on a joint, you must get rid of all secondary contractions about it. For instance, if the ham-strings are contracted, you divide them freely through longitudinal incisions. I will give you details of a few cases which I have attacked with very satisfactory results. A man, perfectly healthy and strong, æt. 46, fell over a croquet-hoop and injured his right elbow. The joint was so much damaged, and there was such an amount of inflammation in it after the fracture, that he had very limited movement—not more than five degrees—and the elbow was ankylosed not at a right angle but at an obtuse angle. It was, therefore, very awkward for him, and he came to me desiring to know if I could do anything to increase the movement, and he was operated on in October, 1909. The joint was opened by a posterior incision, the olecranon, the head of the radius, and the infra-condylar part of the humerus were sawn off; and a flap of muscle from below the external condyle was interposed between the bone-ends and sutured into place. The patient did extremely well, and I may say the end result was this—that he recovered absolutely perfect movement. One point in the success of the operation was the removal of sufficient bone. In this particular case about one and a quarter inches of bone were taken away at the time of operation. I think I may attribute to this fact the freedom from pain which the patient had after the operation

I will give you another example where cargile membrane was used for an operation on the knee-joint after septic arthritis. The patient was æt. 28, and was bitten by a lion in the Soudan on Christmas Day, 1909. I should say he was about ten days away from Khartoum at the time. The wound was kept clean by dressing until January 10th, 1910, when acute inflammation supervened, and he was taken as rapidly as possible to Khartoum, where an incision was made on the outer side of the joint, and a considerable amount of subcutaneous tissue sloughed and came away through the incision. For some days his temperature remained at between 102° and 104° Fah. Afterwards the joint was moved several times, but little or no movement was regained. When I saw the patient on May 2nd, 1910, the joint was still swollen and puffy, and gave me the impression that septic changes were still going on—that is to say there had not been a complete absorption of the toxins. There was a cicatrix, extending four inches, on the outer part of the joint. The supra-patellar bursa was quite obliterated, and the extensor tendon was absolutely bound down to the front of the femur. The joint was flexed at an angle of 15 degrees, and there seemed to be from this point about 10 degrees of flexion by passive movement. When, however, we attempted passive movement of any sort the temperature of the patient rose from 101° to 102°, and his condition was complicated by the fact that he was subject to malaria, and an attack was brought on very easily. However, he was anxious to have something done, and he said he would be quite satisfied if he ended up with a straight leg. I thought, perhaps, we might do rather better than that. He went to St. Thomas's Home and was treated with hot air massage, and the joint was moved from time to time under anæsthetics. This went on until September 26th, 1910. The patient was full of pluck, and he had eleven anæsthetics for passive movement of the joint. It was then evident no further progress was being made, and the obstruction appeared to be due to the following causes. First, the obliteration of the supra-patellar bursa; secondly, adhesions within the joint; and, thirdly, the dense cicatricial tissue on the outer side of the joint. I decided to open the joint freely, clear the adhesions, make a new supra-patellar bursa, and try and restore as far as possible the movements. A semi-lunar flap, four and a half inches long, with its base at the upper border of the patella, was raised from the front of the femur. The supra-patellar bursa was found to be obliterated. The joint was then opened, and on its outer side adhesions nearly as thick as one's thumb were found, and on the inner side there were numerous fine adhesions. All were either separated or cut away, and in order to cover the spaces left on the external condyle and external tuberosity of the tibia, I stitched over the bones a layer of cargile membrane. Further, I took two other layers of cargile membrane and securely stitched them so as to form a new supra-patellar bursa. Finally, I divided the scar tissue on the outer side of the joint by a number of incisions, and closed the wound. The patient healed well. On June 21st, 1911—nine months after the operation—the angle of flexion was 26, and he could extend from 26 degrees up to 15—that is to say, he had added 11 degrees of extension. As to voluntary flexion, it increased from 26 degrees to 60. and with passive movements he could flex to 65 degrees. The result was that he regained 45 degrees of voluntary flexion and control. It gave the man just the movements he wanted. When he left St. Thomas's Home some roughness was felt in the joint, especially towards its outer side. The joint jumped just like a motor-car going over cobble-stones, but in a month's time those rough places had become smooth, and the movements of the joint had become even. He had, however, to seek another occupation, and he obtained the post of superintendent on a rubber plantation in Borneo. On February 13th, 1912, he wrote to me:—"The leg is behaving remarkably well. The latitude of movement does not increase but my muscular development is splendid. I think my muscles are nearly as strong as those of the left leg, and my calf measurements do not vary much now. I do a great deal of walking up rough road tracks which are very hilly, and except for somewhat restricted movement the leg causes me no trouble." On March 13th, 1913, he wrote:—"You will be much pleased at the development of my left leg. I am able to walk over rough roads, and there is no trouble except for limitation arising from movement. The latitude of movement does not increase." This is a case in which one was handicapped by the original cause of the trouble, and by the fact that the patient had constant attacks of malaria at the time of the operation, also by the septic state of the tissues. I have done similar operations for ankylosis, and I have learned from Professor Putti, of Bologna, the value of transplanting of flaps of fascia, and I now have a case in the Royal National Orthopædic Hospital of bone ankylosis of the knee-joint of septic origin, in which I have used such grafts with a promising result.

Now, as regards the after-treatment of cases of ankylosis, one difficulty, which must always be taken carefully into consideration, is the fact that they are extremely painful cases, and in selecting your patient, unless you are quite certain that the patient will have sufficient pluck and perseverance to go through a prolonged, painful, difficult and somewhat irksome after-treatment, my advice to you is—leave the case alone. Therefore, do not select a weakly male or a nervous female for your treatment. If you do, you are bound for disappointment, because they will not, and cannot, face the pain and the persistence required. Now, the patient I have told you about, who had a lion bite, was a man of the most unlimited pluck. Nothing ever daunted him; he used simply to work and work away at that knee-joint, prepared to do anything and submit to anything with the object of obtaining increased movement, and a large part of the success was due to his splendid pluck and fortitude which carried him through so many difficulties. One other point in the after-treatment of these cases is—should we attempt early passive movements or not? In my earlier cases I used to begin passive movements quite soon. I am convinced I made a mistake. I feel it would be better to leave the question of passive movements for three weeks after the operation. If we implant tissues in the way which has been indicated, by early passive movements we must certainly displace them, and cause them to ruck up, and produce a good deal of hæmorrhage into the joint, and this while transformation in the fibrous tissue is proceeding. I am therefore convinced that the proper thing in these cases is not to attempt passive movements for three weeks, but, as soon as the wound is healed encourage the patients themselves to make active movements. They will not allow their active movements to go so far as to disturb the parts, whereas passive movements often result, I think, in distinct harm and discount the value of the operation. Another point is that of supervision. I do not think I should care to undertake the treatment of one of these cases of ankylosis by an artificial joint, unless I could have the patient under my immediate observation for four to six months afterwards, because the treatment must extend over that time; but with these limitations, with these reservations, with careful selection of cases, with good judgment, and thorough *technique* I believe the operation has a distinct future. It is not an operation that is to be widely practised, but it has possibilities in competent and careful hands.

Note.—*A Clinical Lecture by a well-known teacher appears in each number of this Journal. The lecture for next week will be by J. D. Mortimer, M.B., F.R.C.S., Anæsthetist to the Royal Waterloo Hospital for Children, Throat Hospital, and St. Peter's Hospital. Subject: "The Medico-Legal Position of the Anæsthetist."*

ORIGINAL PAPERS.

THE TREATMENT OF TABES DORSALIS IN THE LIGHT OF ITS RECENT PATHOLOGY.

By TOM A. WILLIAMS, M.B., C.M., Edin.,
Washington, D.C.
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Before considering the treatment of tabes dorsalis, it is necessary to have a clear notion of its pathogenesis, so that one may always keep in mind the process against which efforts are to be directed. The review I shall attempt is all the more required in that there will emerge from it conclusions entirely at variance with the pessimism of the dystrophic theory, so recently re-emphasised by Ferrier and still later by Mott. Both of these writers have, as I hope to show, dismissed too cavalierly the considerations regarding the posterior roots which Nageotte was the first to place forward convincingly. An examination of his facts should convince the impartial that tabes cannot be a dystrophy of the sensory protoneurome; for it is a degeneration secondary to a meningitis of specific nature which falls most heavily upon the posterior roots from anatomical and physiological causes.

In serial sections of the roots of the spinal cord, one cannot fail to see that the meninges in approximating to and ensheathing the radicular nerves leave a potential space, a canal, for a considerable distance along the roots where the anterior joins the posterior.

Nageotte's serial sections of the roots clearly show that just at this canal occurs a round cell infiltration of the perineurium and epi and endoneural sheaths. This spot is, in the lower lumbar and sacral nerves, a long way from the pial ring which Redlich and Obersteiner, and following them Orr and Rows, believe to mark the commencement of the posterior column degeneration. The inflammatory process upon the radicular nerve differs only in intensity, but not in nature, from that upon the meninges, generally speaking. But on some spots there may even be found a well-marked granuloma of minute size; and this may sometimes be seen in the process of degeneration into a cyst.

This exudate, which not only lies upon, but infiltrates the endoneural trabeculæ of the roots, cannot but impinge upon and injure the nerve fibrils. And it is their destruction at this spot which induces the degeneration of the posterior columns of the cord. But it is not only the intramedullary fibres which atrophy, but those in the roots as well, that is in their course from the site of the lesion towards the cord. The results do not differ from those caused by the root pressure of tumours of the theca vertebralis or by tubercle of the same. The effects of the increased intrathecal pressure caused by cerebral tumours are similar, too. In this latter example, however, the lesion of the root is produced mechanically by the pressure forcing apart and flattening the nerve fibres. But the site of the process is the afore-mentioned canal called by Nageotte the radicular zone.

In the root itself, however, regeneration is possible when the lesion is absorbed if that takes place. But within the cord no regeneration can occur; for no neurolemma is possessed by the fibres there.

Now as a granulomatous process often undergoes resolution with only an inconsiderable cicatrix, many of the roots in tabes may not appear degenerated to the naked eye on account of the new-formed fibres maintaining their bulk at a normal circumference. But under the microscope such a nerve shows an abundance of new-formed fibres, many of them ending in the small, curling neuromata so familiar in amputation stumps. These regenerating fibres, however, cease at Redlich's ring. Of course, when an extensive fibrosis has occurred the fibres regenerating from the ganglia cannot traverse the radicular zone; and we find then the flattened and empty roots which so often occur in cases of long duration.

In some individuals the adherence of the meninges may be more areolar and extend nearer to the ganglion; and this peculiarity may account for the few cases in which a diseased condition has been found in these organs. But, of course, one must carefully distinguish from this the chromolytic "reaction at a distance" which occurs in every nerve cell whose axone is injured.

It may be contended that neither spinal tumours nor Pott's disease without deformity produces tabetic symptoms; but it must be remembered that spinal tumour affects only a few roots, does so massively, and gives rise to numerous cord symptoms which preponderate; while some of Alquier's cases show that a tubercular process can indeed for a time simulate that of tabes. In cerebral tumours, again, tabetic symptoms may often be found when searched for clinically, although, of course, they are only fruste, and are quite overshadowed by the cerebral disorder.

To these views it has been objected that meningitis is more often absent than present in tabes. But this can be said only of macroscopic lesions. Careful search with the microscope always reveals meningeal exudates and the fibrous sequelæ of many more. It is these that Ferrier, in championing the dystrophic theory, has miscalled "thickenings secondary to nerve degeneration." But an unprejudiced study of various meningeal localities in the same patient clearly shows the inflammatory nature of these. Moreover, the lymphocytosis during life indicates the meningeal irritation responsible for the round cell infiltration and exudates.

It must not be forgotten that lymphocytosis is found in 40 per cent. of luetic cases during the eruption stage, and that it is often accompanied by sluggish reaction of the pupil to light. It indicates an eruption, so to speak, in the meninges, and like all such secondary phenomena tends to undergo resolution spontaneouly or under treatment.

Moreover, it is *not* rare for other meningitides to cause secondary intraspinal degeneration through implication of the posterior roots; for the researches of Alquier regarding tuberculous pachymeningitis, as well as Lejonne's studies of cerebral tumours, show the frequency of such intraspinal secondary degeneration.

That tabetic lesions tend to be segmental is surely not against their radicular origin; for recent researches have refuted the notions of Brissaud and Head that intraspinal segmentation differs from that subserved by the roots, at least where the sensibility is concerned.

Ferrier's other objection that well-marked intramedullary degeneration may occur in the absence of inflammation or atrophy of posterior roots is answered by the previous considerations as to the regenerative power of these, and in addition by the experiments of Bickles, who found that the roots completely regenerated after section, leaving their corresponding intraspinal path sclerosed just as in tabes.

The escape of the anterior roots, which he brings as a further objection, is merely relative and functional, because of their rapid and affective regeneration; besides which their course within the meninges is shorter than that of the posterior roots. It is very significant that the parts affected by tabes are just those of which the radicular nerves and roots have the longest course, that is, where they are the most exposed to any cause which irritates the meninges. They are shortest in the cervical and upper dorsal regions, where symptoms are rarest; they are longest in the lower lumbar and sacral regions, where the symptoms are commonest and most often commence. Moreover, the frequency of cranial nerve symptoms is explained by the prolonged exposure of those to meningeal irritation during their passage across the subarachnoid space. And moreover the implication of the optic nerve in this situation, where it is no longer a posterior root, but a body of relay neurones, is another proof that the process is not a specific, protoneuronic dystrophy. Again, most persons lie rather on the back than the face, and this may partly account for the lesser implication of anterior roots. The lesson of hypostatic pneumonia and of abscess draining surely indicate the importance of posture.

Marinescuo and Minea have also minutely studied the radicular nerves of tabetics, and have shown definite regenerating fibres. (The process of regeneration is most conspicuous in the early stages.) They exist not only in the roots, but extend to the ganglia, and there is a great difference between the internal and external poles of this, the persistence of old axons being much greater at the latter. The fibres are embryonal and resemble those found in regenerating nerve. They usually arise from the glomerulus, and are generally collaterals, though they may be rejuvenations of old nerve fibres appearing as a fine black staining fibre from the extremity of an axon which has become conical; they are hard to trace. They finish in a mass of variable forms and occur mainly at the emergence of the radicular nerve at the superior pole. Marinescuo considers them as a reaction of the cytoplasm caused by direct irritation, for they occur also in transplanted ganglia and in myelitis. They therefore believe that the tabetic degeneration is a primitive atrophy of the central branch of the spinal ganglion caused by syphilitic toxine, for they cannot otherwise explain the fact that changes occur not only in the radicular nerve, but the intra-ganglionic fibres. They therefore believe that the interstitial and vascular inflammation is only concomitant and secondary.

Against this view must be urged the vast disproportion of the degeneration of distal and proximal to the radicular zone respectively. It must be remembered that many observers have found the ganglion cells implicated, and the explanation of this is simply the extension backwards of the process which is begun at the radicular zone, for this is always much more gravely attacked. It is possible in this way to explain the peripheral neuritis in certain cases. And, indeed, in a later communication, the same authors point out the inverse ratio between the number of *uniform* fibres and those degenerated, both within the ganglion and in the radicular nerve. The regenerating fibres in the more chronic cases rarely reach the posterior roots proper. They traverse a most circuitous route, often turning backwards. The degenerations extend right back to the ganglion, and the axolysis and interfibrillary accumulations resemble those in sectioned nerves; but the process differs from this in that a degeneration extends right back to the ganglion, which does not occur after a mere section. Moreover, the regenerating fibres remain embryonic, all of which goes to prove the primitive intoxication preventing them from complete development.

These considerations entirely negative a dystrophic explanation of a process where anatomical regeneration is so conspicuous a factor, even though, from mechanical and perhaps chemical and biological reasons, the regenerations may not become functionally effective (see photographs of microscopic sections in "International Clinics," April, 1910).

The early meningeal infection, the continuance of which eventually produces tabes dorsalis, is illustrated by a patient of Gaucher and Maloizel, who was entirely refractory to mercury, and who seven times presented exacerbations of cutaneous lesions accompanied by meningeal syndromes of fever, headache, vomiting, stiffness of the neck and lymphocytosis.

The mode of penetration of the inflammatory process into the optic nerve is illustrated by Babinski and Chaillous' study of the visual fields in tabetics. They show that there is no particular type, but in most cases an irregular contraction for white, usually on a par with the general enfeeblement of acuity of vision, though in a few cases visual acuity is good. True central scotoma is rare, and is generally due to an added intoxication by tobacco and alcohol; but central vision may be abolished consecutively to that of a sector of the field, and may even leave part of the peripheral field intact. But Galezowski has shown how central vision may be lost very rapidly as soon as a half sector of the field has been implicated, and that this is due to the situation of the central fibres in the heart of the optic nerve and tract to reach which meningeal inflammation requires considerable time.

Lesions of the sympathetic fibres are quite common in tabes, the lesion occurring as they pass from the grey matter of the cord, probably Bruce's intermedio-lateral column, to the sympathetic chain, via the spinal roots. Such lesions may even be focalised, as in the case of Jeaneime and Sezary, in which a left-sided cervical sympathetic syndrome along with hemi-hyperæsthesia of the face and head occurred without fever or other general symptoms, but with marked redness and herpes of the throat, ear and face, with a myosis and iridoplegia to light. The man had always been subject to hepatic attacks, but not of this character; there were extensive hyperæsthesiæ, loss of tendon reflexes, lancinating pain since a year, staggering gait. Lumbar puncture showed lymphocytosis. Sympathetic symptoms largely cleared up in a few days under mercury.

Muscular atrophy in tabes is being more and more frequently reported. Thus Camp reported to the Philadelphia Neurological Society two cases of tabes which began with a muscular palsy of the extensors of the foot; he emphasised the relationship of this to ocular palsies. Lapinski, too, publishes many cases beginning with motor paralysis, but he believes them due to loss of tonus by lesion of the posterior roots, not taking into account the researches of Nageotte on the anterior roots. The evanescence of the paralyses which occur in early tabes is illustrated by the case shown by Crouson and Nathan at the Paris Neurological. There was total bilateral ophthalmoplegia, masticatory paralysis, and uni-lateral facial palsy, with hyperacusia, without sensory troubles of the face or any part of the body; but he had lightning pains, numbness, loss of tendon reflexes, slight troubles of the sphincters. No muscular atrophy followed, and the paralyses all recovered except that of the right abducens.

This case may be compared to that shown by Lamy, in which, however, the muscles atrophied after 11½ years' slow progress, the only other signs being reflex iridoplegia and loss of one knee jerk; lightning pains had never been complained of.

Souques, too, reported a similar case of external ophthalmoplegia only with palsy of the palate, respiratory crises, rapid pulse. In the limbs the only symptoms were formications and occasional crises of pain; there were no sphincter troubles. There was the possibility of added infection in this case causing a poly-encephalitis inferior.

Raymond's cases again of muscular atrophy of the arms are most striking. So is that of Souques, in which the muscular atrophy was of the Aran-Duchenne type, without sensory troubles in the arms, while in the lower limbs lightning pains had occurred, and the left knee and right Achilles reflexes were abolished, although both great toes extended on stroking the sole, and there was reflex iridoplegia. He interprets the symptoms as all being due to the same cause—viz., syphilitic meningo-myelitis, and cites in support of this the thirty cases of progressive muscular atrophy in syphilitics collected by Leri, and the cases of Rendu and Laignel-Lavastine, in which Aran-Duchenne palsy occurred in the course of general paralysis. In all these patients but one, who refused examination, lymphocytosis was found.

Localised meningo-radiculitis is still more apparently the origin of muscular atrophy in a case of the author. It is one of cerebro-spinal lues, whose symptoms are mainly mental, but who shows unilateral hypo-æsthesia of L V and S 1 only, along with marked atrophy of corresponding glutei.

The case of meningo-radiculitis reported by Raymond and Oppert shows definite focalisation of sensory and motor troubles, L. IV. V. S I. II. III. IV. being implicated. There was then, however, no iridoplegia, though the Achilles and patellar reflexes were absent.

Mott objects that the Argyll-Robertson pupil is too constant to be explained by the incidence of a syphilitic process. But it is not a case of random metastases, as he assumes, but of general attack of the meninges, which determines a slowly progressive involvement of those nerve fibres which are clothed by the diseased membrane. Their danger, functionally speaking, is in proportion to their length of exposure, and inversely to thickness of covering relative to the membrane. In this we should find a strong presumption that the photoreflex arc is particularly exposed to attack, whether because of superficiality of course, or a peculiarity hitherto unsurmised. It is to this rather than the invocation of metastases that we must refer its so frequent implication; as, of course, it escapes in merely focal syphilitic affections of the central nervous system, unless these too are complicated by a meningitis. As Nageotte long ago remarked, lymphocytosis long precedes iridoplegia. Even lost knee-jerks often do so, too.

Researches in this direction following up those of Marino might show that the iridoplegia to light was a purely sympathetic phenomenon, and due to the implication of the slender and exposed non-medullate fibres during the course from the carotid plexus to the ciliary ganglions; for the photomotor reflex may be due entirely to inhibition of the ciliospinal centre ceasing to antagonise the tonus-regulating sphincter pupillæ under the control of the third nerve. It must be remembered that some tabetics' pupils are fixed in dilatation instead of in the more usual contractions. The Argyll-Robertson pupil might be regarded then as one not dilating to the absence of light, which presents the impression to the observer of not contracting to light, for, of course, it has no stimulus to do so unless in a state of dilatation in the proportion to the illumination it undergoes.

The fact that only from 3-5 per cent. of syphilitics should ultimately present symptoms of tabes or paresis is no more remarkable than the similarly small percentage which suffers from sclerosis or gumma of the liver, which no one pretends to signify a special degenerative predisposition of the hepatic cells in these individuals; for it is clearly recognised that gumma is a focal infective granuloma, while in diffuse sclerosis the atrophy of glandular cells is entirely secondary to the connective tissue inflammation. Why then should one desire to invoke as an explanation of tabo-paralysis such a tendency to parenchymatous dystrophy as is invoked by Mott following Fournier? Such an explanation is completely negatived by the constant and continuous growth of the axones from the cells of the posterior root ganglia in their attempts to traverse the inflammatory focus in the radicular zone. It is against all we know of pathology to suppose a dystrophic neurone to be capable of such persistent growth. Whereas the real explanation is before one's eyes in the meningitic focus upon the radicular nerve.

Again, Mott, for reasons which he does not specify, rejects the view of Lesser, Bose, etc., that tabes, etc., are quarternary syphilis, and comparable to the scleroses of orchitis, glossitis, etc., and that the degeneration of the noble elements is secondary to the meningeal and perivascular infiltration and to the proliferation of glia; but the facts I have presented make it difficult to reject these views without due reasons.

To support the dystrophic theory, he is driven to contend for numerous hypotheses, such as that the nerve cells of a syphilitic acquire a habit of increased metabolic activity continuous during life, and that this contributes to excess of lipoids in the blood. This tendency to decay increases, and is the cause of increased functional nervous activity in the early stages, and this is specially injurious with regard to the genetic function on account of the loss of the nuclein substances of the sperm, because the lipoids *may be* products of nuclear activity, and the highly phosphorised nuclein *may be* really the source of vital action.

The excess of lipoids may as easily be explained by an increased breaking down of cells, not necessarily even those of the central nervous system, due to the chronic inflammation process of specific kind. We are very far from being able to affirm a perverted habit of cytologic activity and to base a doctrine upon so slender a hypothesis is, to say the least, premature. Moreover, we have no proof that loss of highly phosphorised nuclein of the sperms by sexual activity in any way injures the organism.

Such speculations strike the writer as being at variance with the methods which science has learnt to adopt in order to safeguard its postulates from the incursions of ill-founded theories.

Of course, such conclusions connote the uselessness of anti-syphilitic treatment to a system which has already "over immunised itself against the syphilitic virus" and compel recourse merely to suppression of causes which use up nerve energy and overturn metabolic equilibrium.

Of course, no physician would neglect the management of these factors; but recent evidence tends to show that there is as much validity in administering mercury in tabes and even paresis when diagnosed early as there is reason to do so in arterial degeneration and gumma, whether in the central nervous system or not. The latter are both unamenable to such remedies in so far as the contiguous parenchyma has been destroyed, and atheromatous arteries have no more power of regeneration than has the central nervous system. But no one withholds mercury for these reasons; for though it cannot restore dead tissues, we do believe that it at least increases resolutive activity and aids in arresting the gravity of the infective process. We are not yet certain whether mercury and iodides act antibacterially or as antitoxines directly, or whether they do so by stimulating the defensive reactions of the organism by means of the internal secretions or otherwise. There is even a possibility that just as digitalis may shorten the life of the individual by using up cardiac energy prematurely, so may mercury exhaust the defensive powers of the patient. Thus Kron concludes from the study of 482 cases that more treatment connotes earlier tabes, and Craveri believes in low doses from his experience of earlier cases, many of which lacked the Westphal sign and had only one symptom.

Again, Faure, of Malou, has pointed out that mercury, while it does harm to tabetics with chronic cystitis or intestinal troubles or cachexia, is of great benefit even in some cases of tuberculosis, if not pulmonary. He quotes a case of a man of 40 who had had tuberculous osteitis and was attacked by a severe tabes with multiple symptoms. After five years of mercurial treatment he is in excellent health, and most of the annoying symptoms have disappeared. Moreover, in tuberculars not treated by mercury, relapses are very frequent.

In Donath's case the knee reflexes which had disappeared five months after the first symptoms showed themselves, returned twenty-two months later.

The experience of Erb and Babinski strongly confirms the usefulness of mercury; they find that the pain, especially, disappears after thorough treatment, and that the progress of the disease ceases, although, as before explained, regeneration cannot be expected. Lesser believes that the Wassermann reaction is of use in controlling the administration of mercury in that it becomes much feebler during treatment, and that he has found it in only 50 per cent. of tabetics on account of the well-known tendency to arrest in this disease, whereas the complement is deviated in all cases of paresis. (*a*)

It must be recollected that the specific meningitis which causes tabes is often complicated, especially in later life, by arterio-sclerotic conditions. These long ago caused Gowers to place degenerated spinocerebellar tracts in the picture of tabes. In estimating the pathogenesis of tabetic disorders, such anomalies must be taken into consideration. Thus Long reports a case of spastic tabes where the reflexes disappeared only at the end of the disease, and the roots were little altered.

In the early stages, too, the pial trabeculæ in reacting to the noxa, may show peri-arterial infiltrations, as shown first by Bentley, as Schroeder found in five cases, not only in the posterior column, but in whole circumference of the cord and optic nerve and brain stem as well, though not in the cortex. These appearances were not found in alcoholic pseudo-tabes. This is the process that occurs in the cortex of paralytics; but according to Alzheimer, it rarely occurs within the cord of tabetics, although he, in common with Nageotte, has always found infiltration and thickening of the pia mater itself, as has Spiller in most cases.

Another source of error is the acute and grave degenerations of medulla and nerve which sometimes occur in syphilitics, whether tabetics or not. Thus Preobraschensky reported a case which died in thirteen days after onset of an acute muscular atrophy of limbs and trunk. It was only at the end of the illness that pains and irregular pupils ensued; the man had syphilis fifteen years before. *Post mortem* were found atrophy of the anterior horns and infiltration of the vessels of the cord with atrophy of the roots near the cord.

Crouzon and Villaret report that after some months of right sciatica (meningo-myelitis) a man of forty-two died in eight days of an acutely ingravescently ascending paralysis. François Dainville reports that seven years after infection, with no symptoms of treatment, a woman of 23 was admitted owing to albuminuria. She had no cerebral symptoms, not even headache; but she died in

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(*a*) See author's paper "Diagnosis of Tabes in Relation to Salvarsan." *Va. Semi Month*, April 25th, 1911 nine months, a tabetic. *Post mortem*, was found a meningo-vascularity like that first described by Dejérine and Sottas. Experimentally, Schroeder found in an ape which died seven months after inoculation after a month of ataxia and blindness, without loss of the light reflex and with exaggeration of tendon jerks, an atrophy of the optic nerve, the myeline of which was replaced by granules, intense degeneration of posterior columns, with conservation of posterior roots, and no plasma or round cell infiltration. He believes this is not a true tabes, but an acute intoxication like Crouzon's case.

This exaggeration of knee-jerks is comparable to the lightning pains and the rare eye-crisis which Pel described in 1898 as an early symptom of tabes; they consist of great photophobia and lachrymation occurring periodically and lasting for a few minutes or more, often accompanied by hyperæsthesia of the fifth or other cranial nerves

I have by no means exhausted either the facts or the arguments in favour of the point of view here presented, for they are accumulating daily, and while in Paris last month I myself observed an extraordinary number of cases of tabes fruste, local radiculites and early cortical manifestations of luetic meningitis.

When seen and treated in this early state, these conditions may be at least arrested in a large proportion of cases. This is particularly the case with regard to the ocular symptoms; but mercury must be given here by intravenous injection, so that it may rapidly gain access to any diseased focus. In Abadie's clinic during the last eight years an average of thirty cases has been injected per day, and there has never been the least accident, phlebitis or pain never having occurred. In St. Louis, on the other hand, these complications are not infrequent, and they are due to timidity in making the injections and to one's not adopting the safeguard of drawing a little blood from the vein into the syringe before injecting the solution. Wm. Froguer informs me that a considerable number of cases of tabetic optic atrophy has in this way apparently been arrested, sometimes with considerable recovery of vision. Not only so, but the lightning pains from which many patients have suffered for years, although they do not come to the ophthalmological clinic for these have often been treated without avail as rheumatism. It is the characteristic diplopia, amaurosis, ptosis or iritis which brings them to Abadie; and the cure of the lightning pains or improvement of an ataxia which may be present is to the patient an incident in the relief in his ocular symptoms.

Milian, of Paris, too, reports both complete and symptomatic cures in early cases. He believes, however, that late cases are aggravated by mercurial treatment. Montagnon and Girond, of St. Etienne, also report cures; and many other observers in pushing the mercury and introducing it directly into the system are actively testing this method of treatment, believing that *natura morborum curationes ostendent;* and it is with a view to invoking its more extensive trial in the United Kingdom also that I venture to adduce these considerations.

TUBERCULOSIS IN INDIA. (*a*)

By C. MUTHU, M.D.,

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In my recent tour in India last year, I visited many parts of India with a view to investigating on the spot the extent of tuberculosis. The places I visited extended from Bombay to Rangoon in one direction, from Nepal, Calcutta, to Madras in another, and I returned with the conviction that tuberculosis has made a considerable advance during the last 20 years. The mortality in Indian cities like Bombay and Calcutta is considerably higher than in Glasgow, Birmingham and Manchester. The death rate from tuberculosis in the Madras General Hospital has doubled in 1913 as compared with 1912. It is more common among females than the male population owing to insufficiency of air and ventilation of zenanas, and therefore more common among Mohammedans than the Hindu females. Many cases of consumption are either missed or mistaken for malaria, enteric, or other continuous fevers. The classification and registration of deaths being vague and misleading, many cases of tuberculosis are certified under "respiratory diseases other than phthisis, pyrexia of unknown origin, other fevers than small pox, etc.," so that there is every reason to believe that the number of certified deaths is far below the actual number caused by the disease. There is, however, one reliable source of information as found in the reports of the Oriental Insurance Company. From the report of the number of deaths among the company's policy-holders we gather that tuberculosis claimed a mortality of 9 per cent. in 1911, 10½ per cent. in 1912, and 11½ per cent. in 1913. Based upon this calculation, and taking the population from the census returns for 1911 as 244,267,000 for British India and 315,000,000 for the whole of India, roughly speaking tuberculosis claims an annual death rate of 906,719 for British India and 1,169,280 for the whole of India, which means the equivalent of the whole of the population of Calcutta is wiped out in a year from the ravages of tuberculosis.

Europe's phenomenal progress in commerce and industry took the Indian ryot, the weavers and the artisans by surprise and brought about a state of things for which they were not prepared. The result was the crushing of the indigenous industries, unemployment, migration from the villages in search of employment and consequent overcrowding of towns, and high rents and dear food brought conditions of want and poverty. Malaria followed the neglect of the villages and their sanitation, and constitutions, enfeebled by poverty and malaria, easily fell victims to plague, pestilence and famine. To complete the picture, the adoption of European standards of living and the increased facilities for drink have intensified the effects of misery and poverty and prepared the soil for tuberculosis; a condition of things similar to England of 30 or 40 years ago. Owing to rapid growth of towns and cities, the absence of free grazing lands and increased expense of feeding cattle, the common articles of diet like milk, butter and ghee have rapidly advanced in price and cannot be bad pure or of good quality. When we consider the prevailing rates of wages for millions of unskilled labourers are not more than two or three pence a day, we can see that any increase in the bare necessaries of life soon over-reaches the margin of subsistence, resulting in under-feeding and starvation. The import of large quantities of condensed milk, tinned butter, and other artificial foods, in place of fresh dairy produce, account for the large infant mortality and defective nutrition of the poor.

(*a*) Abstract of Paper read at the Eighty-fourth Annual Meeting of the British Medical Association, held at Aberdeen, July, 1914.

Consumption is complicated with malaria; the tropical heat and dust aggravate the symptoms. The social customs of the people, such as early marriage, are features that predispose the soil for tuberculosis. Besides poverty, malaria and overcrowding, Western civilisation has brought great unrest—social, mental, moral and spiritual—among the Indian people. After a close study of tuberculosis for 20 years I am convinced that it is not so much an infectious disease as a chronic disorder of nutrition, dyscrasia, and degeneration. The Indian population which suffers from poverty, hardship, scanty clothing, insufficient food, succumbs to fever and tuberculosis in a much larger proportion than the Indian troops, who are better fed, clothed and housed, and are under better sanitary conditions. There is practically no tuberculosis amongst Indian cattle; millions of people do not drink cow's milk owing to its dearness or the difficulty of obtaining it pure, and yet tuberculosis, as we have seen, is very prevalent. So in Japan and other oriental countries where little or no milk is drunk, and still consumption is rife, so that the theory of milk infection should be greatly modified.

Remedies.—Just as in England, any cheapening of food and improvement in rate of wages and fixed incomes will reduce poverty and raise the resisting powers of the poor against tuberculosis and diminish the death rate in India. The first duty of the Government and social reformers in India should be to make every effort to keep the people in the country by making it attractive and habitable and reviving village life. This can be done by attention to rural sanitation, hygiene, the clearing of jungle, the provision of a proper water supply by digging wells, the organising of conservancy. The granting of free grazing land would revive the dairy industry and cheapen dairy produce and reduce infant mortality. Also by reviving the agricultural industry and improving the condition of the farmer by promoting indigenous arts and industries of the country, so that artisans will find work in the villages and thus reduce the congestion of the towns.

In the cities—improved sanitation, drainage, pure water supply, town planning with a view to wider thoroughfares, sufficient air, light and ventilation, roads through congested areas, the provision of parks and gardens, cheap lodgings for the poor that can be let at a low rental by the municipality, the distribution of the population to the suburbs by cheap train service, hygiene taught in schools, the inspection of the milk supply. All these sanitary measures will promote the efficiency of the people and help to solve the tuberculosis problem of the towns.

As medical opinion is still divided as to the efficacy of tuberculin any establishment of tuberculin dispensaries in India is at present unwise. I am in favour of the dispensary system in India which would serve as a central bureau and sorting house working in connection with hospitals and sanatoria. The general hospitals would have special wards set apart for tuberculous cases, and early cases could be treated in sanatoria erected on suitable sites at an elevation of 4,000 to 5,000 feet to ensure a cool atmosphere and equable climate. Above all, I would strongly advocate a system of village colonies where consumptive patients should go and live with their families and at the same time carry out the open-air treatment under ideal conditions. The colonies would contain groups of cottages with large gardens, a hospital, sanatorium, school for children, a farm, dairy, laundry, etc. Here patients could also receive training in agriculture, gardening, dairying, industry, carpentering, etc. These colonies would, in fact, be model villages and embrace many activities and become a centre of education and training, and can be made partly self-supporting and partly helped by the municipality and Government. Some such scheme earnestly carried out would go a long way to solve not only the problem of tuberculosis but also other social and economic questions.

THE LEPROSY OF RATS.

By PROF. E. MARCHOUX, M.D.

[Specially Reported for this Journal.]

Impotence of the Experimental Method in the Investigation of Leprosy.

The bacillus which was discovered by Armauer Hansen in 1868, and which now bears his name, did not come to be definitely regarded as the specific germ of leprosy till 1879. Since the latter date a number of savants have in turn announced their belief that they had succeeded in obtaining cultures of the same *in vitro*. But the fact still remains that not one of them has presented the scientific world with any demonstrative proof of the real significance of his discovery. Thus the position with which we at the present moment are faced is that the bacillus of Koch has not yet been cultivated artificially.

Then, again, we have to admit that the procedure of experimental inoculation has resulted in no greater success. It has, indeed, been very often tried, and on various animals. Quite a number of observers have, indeed, actually recorded as successes serial phenomena which, on closure of the account, could be clearly proved to have been but the result of a natural process of reaction, of which the preservative tendency was to secure the disappearance of the germs that had been artificially introduced into the previously healthy tissues. It must also be admitted that the essays in way of experimental infection of the human organism have been followed by no greater success. Apart from the celebrated experiment of Arming—which has been so vigorously attacked by Swift—all those of the long series carried out by Danielssen, Bargilli, and Profeta, which comprehended about sixty individuals, have remained absolutely unfruitful and unconvincing.

Thus we have to acknowledge at present date that our investigations in the direction of attaining to a knowledge of the mode of contagion of leprosy have merely resulted in a series of repeated failures. And the obscurity with which the ætiology of the disease has remained so persistently surrounded has inevitably projected its shadow on the prophylaxis, which has accordingly continued to be, in almost every detail and feature, exactly what it was in the middle ages—blind, if not wholly ineffective.

In order to make an effort to clear for ourselves a passage through and beyond those weathered ruts, my collaborator M. Sorel and myself took up the study of the disease of the rat, which presents so close a cousin-germanship to the nature of leprosy, calculating on being able to secure means of investigation which could be applied in dealing with the former, of a quality and effectiveness that had not hitherto been attained in dealing with the latter. It would surely not be the first occasion, if our hopes were realised, on which the successful exploration of the mysteries of a disease of lower animals had been made to throw light on the dark recesses of a malady of the human organism, the ætiology of which had previously proved itself an elusive enigma of which the Œdipus seemed destined to remain evermore unborn. Thus the evolutionary cycle of the proteosoma of birds enabled R. Ross to establish the mode of propagation of paludism, with all its attendant train of physical ills. For corresponding reasons we set ourselves to demand every day from tuberculous animals some further enlightenment which may subsequently prove applicable in the treatment of the corresponding disease in the human species. It has seemed to us a logical inference which leads to the belief that a disease such as the leprosy of the rat, which is caused by the presence of a germ belonging to the same family that includes the bacillus tuberculosus and the bacillus lepræ, would naturally furnish us with interesting revelations in this special domain of comparative pathology.

Our expectations in this direction have not been disappointed. In the exposition which here follows it will be seen that the leprosy of the rat is outlined on the clinical model of that of man: in its symptoms, its pathogeny, its course and its termination. Accordingly, we have to press the question: Why should not the analogy extend still further? Why should there be any extreme difference between the ætiology and the prophylaxis in the respective cases?

Leprosy of Rats.

Stefansky, a physician of Odessa, to whom the authorities had entrusted the charge of the prophylaxis of the plague, discovered in 1903, while engaged in the daily examination of a great number of rats, that the sewer rat was the subject of a novel affection which he was able to trace to the causative agency of an acid-resisting bacillus, which multiplied itself with extreme rapidlty in the lymphatic glands and beneath the skin of those animals. That disease, which he found to be almost specialised in its limitation to the grey rat (*Mus norvegicus*), is also as extensively distributed as that rodent. Thus it is found to exist all over the surface of the globe—in Russia, in Germany, in England, in Roumania, in America, in Australia, in New Caledonia, in India, and in Japan. We have demonstrated its existence in the sewer rats of Paris. It presents itself under two forms: one is exclusively glandular, the other musculo-cutaneous; but the latter has proved itself, after prolonged investigation, to be no other than a more advanced stage of development of the first variety.

The glandular form of the disease, which is of more frequent occurrence, manifests its presence externally by no special physical sign of any kind, and its existence is, accordingly, discovered only at the autopsy. The glands are then found to be increased in volume and of abnormally hard consistence; they are also markedly pale in colour, and may sometimes attain considerable dimensions. Such physical conditions are not, however, absolutely characteristic of the existence of the disease in question, for we sometimes meet with infected rats in which the lymphatic glands are of comparatively small size; while, on the other hand, glands of very considerable volume may be present in indemnified specimens. Then, again, all the glandular groups throughout the body may be affected, or only a certain limited number.

The musculo-cutaneous form of the disease is more rarely met with. The animals therewith affected are extremely cachectic, and even move about only with difficulty, so much so that they may sometimes be caught with the hand. On examination, the skin is found to be thickened, nodulated, and very firmly adherent to the subjacent tissues. We find distinct nodules, which may attain the dimensions of an almond; sometimes they are even of the size of a pigeon's egg. Those tubercles are more especially prone to be localised in the skin of the head, of the external aspect of the limbs, and that of the flanks. They display no tendency to suppuration. In addition to the presence of those neoplastic formations, the skin is found to be studded with patches of alopecia of variable extent. Ulceration of the integument is also frequently met with. No very well marked macroscopic changes are found in the deep-seated organs; at the utmost, we may occasionally meet with small nodosities of paleish tint scattered over the peritoneum and throughout the substance of the liver and of the spleen. Some of the affected rats become blind.

Pathological Anatomy.—The bacillus of the leprosy ot the rat, like that of the leprosy of man, is a special parasite of the mesodermic cells—the macrophages of Metchnikoff—in which they form veritable colonies. Its presence seems to prove injurious to its cellular host by the incumbrance caused thereby, but not by any alteration produced by a toxic secretion. Thus the cell increases in volume in order to be able to contain the increasing mass of germs which is protected by its waxy shell. Then it becomes distended to the utmost point tolerated by its structure, and ends by bursting, when the emancipated bacilli rapidly distribute themselves abroad and become imbedded in the surrounding cells, which thus in turn come to serve as new culture media for the microbes, and contribute to the formation of a new generation of giant cells. The primitive tubercle is formed by union of parasitic cells and the healthy replacement cells which surround them. From the point of inoculation, the virus proceeds to travel by the lymphatic route, and rapidly reaches the glands, in which the bacilli then proliferate. Then, even before having provoked the formation of a voluminous nodule, the germs transgress the limits of the gland. The parasitic cells now penetrate into the neighbouring meshes of connective tissue, and there proceed to determine the formation of little tubercles which thus develop all around them. In the neighbouring mammary gland, which is quickly infiltrated, the compressed secreting structures rapidly undergo atrophy and disappear. The same phenomenon develops in connection with the cutaneous muscle fibres and the superficial muscular strata, in which the fasciculi are found to become separated, and undergo degeneration with excessive development of their connective tissue. The mononuclear leucocytes, when invaded by the parasites, encumber the connective tissue spaces and the meshwork of the true skin, notably in the more copiously irrigated regions which surround the hair follicles and their sebaceous glands. The result is that they produce asphyxiation of the follicles thus circumscribed, and thereby provoke the appearance of the characteristic patches of alopecia which are associated with the disease; they infiltrate the interfascicular connective tissue of the nerves, and thereon lead to the segmentation of the nerve-fibres, and thus become the indirect cause of the trophic lesions which are found to develop characteristically in the skin of the affected animal, as well as of the motor troubles that present themselves in the muscles of the limbs.

Thus, in a word, the bacillus of Stefansky leads, by its multiplication in the tissues, to the consecutive development of a train of symptoms and of anatomico-pathological lesions, which are actually identical with those produced by the presence of Hansen's bacillus.

Experimental Inoculation.—The first successful inoculation of the disease on a healthy rat with the virus taken from an infected one was carried out by G. Dean. After the introduction of a large quantity of the infected material into the peritoneal cavity, he found that development of considerable lesions resulted. We now feel assured that the employment of so copious injections was not actually necessary. Quite as successful a result is found to follow the introduction of a particle of the contaminated connective tissue beneath the skin, or of a small portion of the liquid expressed in the crushing of one of the tubercles. The power of attraction of the leucocytes which is always displayed by the septic material is such that some scarification of the epidermis, or even the simple procedure of epilation, suffice in the formation of ports of entrance for the infection. Nevertheless, the gate of entrance must exist, however narrow, for the healthy skin presents an impenetrable barrier to the germs—even the extremely delicate integument of the rats which have not yet grown their hirsute covering.

The white domestic rat is as vulnerable in presence of the infection of this disease as is the sewer rat, and this is, of course, not to be wondered at, inasmuch as both animals belong to the same species. The mouse may be infected in the same way as the rat; but, in the former, the disease process does not become so rapidly diffused throughout the whole organism; it remains, indeed, rather localised in the vicinity of the point of inoculation. Then, although certain investigators have succeeded in experimental infection of the guinea-pig, we are able to affirm that such success is of exceptional occurrence. The rabbit, monkey, and other animals used in the laboratory for experimental purposes are found to prove equally refractory. Thus murine leprosy is a disease specially characteristic of rats, as human leprosy is limited to man.

The Pathogenic Agent.—The bacillus discovered by Stefansky is, as we have already stated, extremely abundant in the diseased tissues. It is an acid-proof and alcohol-proof microbe. It produces Ziehl fixation more rapidly than does the bacillus of Koch, and it resists decoloration better than the Hansen bacillus when divested of its glairy covering. It also takes the Gram stain. Covered around, like its congeners, with its circumferential shield of wax, it successfully resists the digestive powers of the macrophages of which it becomes the parasite. Here, as everywhere else, the phagocytes fulfil their own special function; they seize the germ, and isolate it from the surrounding tissues and fluids of the organism. But, as we know, nothing in the world is perfect. However well regulated organic functions may be, they are sure to prove themselves sometimes at fault. Here the very qualities of the phagocytic cells render the microbe good service. The power of resistance to the action of the digestive juices enlists in the service of the bacillus thus dowered by Nature the chemicotactic sensibility of the leucocytes, which thus favours its introduction; and their mobility, which thus proves the means of securing its general diffusion.

The same phenomena develop in the course of the infection of human lepra, with some variations of relatively slight importance. They are, however, less easily perceptible than in the case of the disease of the rat, in which they can always be reproduced experimentally in the animals used in the laboratory. In the vast number of the elements which become amassed in the invaded tissues, the action of the bacillus of Stefansky approximates to that of Hansen's bacillus. But it is distinguished therefrom by the characters of the grouping. Like the latter, it is intra-cellular; but the germs contained in the protoplasm are found to be isolated, one from the other, and not grouped in spheroidal clumps in a mucous mass. This distinctive characteristic has not, however, any very great value, inasmuch as it is actually impossible to decide whether the glairy secretion which invests the bacilli of Hansen is actually of microbic origin, or merely emanates from the cells which may limit in this way the progress of the parasitic invasion.

The bacillary structures usually measure 35—5 m. in length by 0.5 m. in width. But these dimensions are not constant. We meet with some germs of greater longitude and presenting a slight degree of curvature, with a terminal button at one extremity. All those qualities differentiate but slightly the bacillus of Stefansky from that of Hansen. On the other hand, the degree of germanic relationship is very great. We can accordingly state with confidence that the leprosy of the rat is as closely related to the leprosy of man as is avine tuberculosis to human tuberculosis. The culture of either bacillus remains still at the same stage. We observe a multiplication of microbic elements take place readily enough in leprous tissues when placed on certain solid media, but the progress of the culture is always arrested at the limits of the fragment of deposited tissue. No inoculation has hitherto afforded success—even if we use a piece of the corresponding tissue taken from a fresh rat.

When placed in a liquid medium, in which the microbes of decomposition abound, the bacillus of Stefansky does not long postpone its degeneration. It becomes granular in structure, and comes to present the coccothrix form that has been described as a modification of outline which is peculiar to Hansen's bacillus. Those structures, thus arranged in coccothrix form, far from being really specimens produced by multiplication, are no other than products of degeneration, as can readily be demonstrated by experimental inoculation. Granular bacilli are dead bacilli.

Desiccation kills the bacillus of rats, which also resists heat no better. It is a fragile germ. Exposure to a temperature of 60° (140° F.) for a period of fifteen minutes is absolutely fatal.

Ætiology.—The characteristic course of the progress of the disease, the localisation of the germs in the skin and subcutaneous connective tissues, and the comparative indemnity of the deep-seated organs, all seem to indicate that the germs penetrate the system through the integument. Indeed, an intraperitoneal inoculation produces an affection of grave character, which displays symptoms and lesions that are never observed in the disease when naturally produced. But, where on the skin is the ordinary port of entrance? This is a question to which it still remains difficult to give a final answer. We ourselves thought that we would be conducted to the point of original infection by following the lines traced by the infection subcutaneously.

Inoculation has demonstracted the fact that the bacilli reach the glands rapidly, and without leaving any trace in some cases at the position at which they had gained entrance. It is from those superficial glands that the disease extends. But the constancy with which the specific microbes are always found to reach the gland which is situated at the point of confluence of the lymphatics of the infected locality has enabled us to negative the hypothesis of contagion through the nipple—which we had been disposed to favour from the fact of the constancy of the occurrence of mammary lesions—or through the umbilical cicatrix. Experiment has also proved to us that we need no longer entertain the idea of genital contamination.

Conveyance of the Germs by Parasites.—The question of the action of parasites now remains to be dealt with, which has been so much discussed in connection with the subject of human leprosy If capable of conveyance by the intermediate agency of a parasite, we may say at once that the leprosy of rats would be more widely disseminated than it now is. In fact, we know but too well the facility with which those maladies are transmitted which are conveyed by such invertebrate punctures. But even in presence of such knowledge it was desirable to support this notion by obtaining experimental results.

The parasite which has to be promoted to the position of a causative agent must inevitably be met with in every case in which the disease occurs. Now there are three arthropods which live at the expense of the sewer-rat, and all three combine the conditions in question, and are as widely distributed as the rodent itself; the louse (*Hæmalopinus spinulosus*), the flea (*Anocephalus serraticeps*), and the acaris (*Lælaps echidnus*). We found no acid-proof bacilli in any of the numerous fleas that we examined. But, on crushing on a slide the lice which were taken from infected animals, we have indeed discovered bacilli which resisted the process of decoloration by acids. This power of resistance was, however, found to be but feeble; side by side with bacilli stained red by the Ziehl process others are found with a ground tint of blue, and still others which retain a violet coloration. But in those specimens none were found to be alcohol-proof. In form as well they differ greatly from Stefansky's bacillus. They are short, stumpy, and resemble a cocco-bacillus rather than a true bacillus.

In the lælaps three varieties of acid-proof bacilli were met with. One of those is analogous to that found in the louse; another is long, filamentous, extracellular, and not alcohol-proof; the third bears a curious resemblance to the bacillus of the leprosy of the rat. It is both acid-proof and alcohol-proof. It lives inside the cells, which are sometimes filled with masses of the parasite. It was only from the results of inoculation that we were able to determine the fact that it is a variety which must be differentiated. Inasmuch as they do not function as intermediate hosts to specific germs, those invertebrate punctures are not, of course, able to inoculate them. As a necessary consequence they play no part in the direct transmission of leprosy. Thus our experiments have confirmed the observation which had led to attributing no importance to their presence in this connection.

But, again, it is not those invertebrate punctures alone that have been incriminated. The sarcoptes has also been accused of transporting the germs of leprosy. Scabies is a disease of frequent occurrence among rats; it is also found broadcast in the murine race. It was accordingly desirable that its influence in the diffusion of leprosy should be carefully investigated. Experimental results have proved to us the fact that, when changing hosts, the sarcoptes carries with it no noxious germs. It should be remembered, too, that the migrants are then in the state of larvæ or nymphæ, and that in this stage of their development they are not actually in contact with the specific bacilli, as they are during the period of their adult existence in the tunnels in which they are lodged.

Our experience has failed to verify the hypothesis of Borrel, who has accused the demodex of transmitting the bacillus of leprosy. Not that the demodex fails to appear in the rat, but the mode of development of the parasite is so little known that it is peculiarly difficult to organise a series of demonstrative experiments.

But with regard to the flies, which have in turn been accused of being the agents of connection in the transport of the bacilli of leprosy, we have been able to satisfy ourselves that they merit the fear of their presence that has been inspired by W. Wherry, by D. Currie, and by Lebœuf. When permitted to promenade on the surface of a septic ulcer they become very active agents in the transport of germs. After having nourished flies for some time on the pulp of infected glands we have seen leprosy develop in all the wounded rats on whose raw surfaces they were allowed to promenade with their soiled feet, even when but for an instant.

Thus this second category of arthropods, sarcoptes, demodex and flies are able to play an important part in the transmission of leprosy. The sarcoptes, by opening ports of entrance in the substance of the skin, may thus accidentally prove itself the active agent in preparation of a way of introduction for the virus. The demodex also, when conveying from one host to another its carapace contaminated by the presence of bacilli, may be the means of depositing the noxious germs in a fertile soil. The flies also, by furnishing the microbes with the auxiliary aid of their own wings, may prove efficient agents in conveying the contagion to a distance.

Infection through the Mucous Membrane.—We must also face the hypothesis of a possible contamination by inoculation of mucous surfaces. Rats prey upon one another, and, accordingly, whenever they attack a leprous animal they necessarily absorb great quantities of the specific bacilli. In such cases we have noticed that there is always indeed but a small number of rats which contract the disease; but the latter is then found to present a particular form, that of a primary pulmonary leprosy. But these are the exceptional cases, which are also easily distinguished from the cutaneous or glandular leprosy that presents itself with all the other characteristic developments.

As in the case of man, the specific bacilli are found in the nasal mucus of the rats which are gravely attacked. A curious fact must here be mentioned: we have never succeeded in infecting any animal by rubbing, even forcibly, the pituitary mucous membrane with tampons or brushes charged with the germs of the disease. The copious secretion which supervenes on such artificial traumatism has the effect of washing the mucous membrane, and thus protecting it. And we have had no greater success on carrying out the procedure with greater delicacy of manipulation. We have determined the fact that the preputial mucous membrane allows the germs to pass which are placed in the preputial fornix of the male. Thus there are, in case of the rat, many ways of contracting leprosy accidentally; but none of those that we have yet indicated have enlightened us regarding the habitual mode of transmission.

Contact.—Up to the present we have seen that septic contact is often dangerous. It is always so when a lesion of the integument places it in relation with specific germs. Now, rats often bite one another; they nearly always bear marks of teeth on the skin. It is the bite which provides the port of entrance for the virus. The slightest noise frightens the rodents, which immediately crowd themselves into a heap in some obscure place of refuge. When one of such a group of rats happens to be leprous he rapidly infects many others of the number. An experiment has demonstrated to us the fact that a wound, when made by a sick rat, may be infected on the spot.

A rat in an advanced stage of leprosy had been enclosed in a jar with three young white rats. During the night he killed two of them and wounded the third. On the next day the latter was enclosed in a cage, secure from all danger of further bites. Two days later we succeeded in getting the leprous rat to receive the company of three young rats, and he lived on good terms with these guests of his up to his death, which took place eight days after.

Of the four rats used in that experiment only one had contracted the disease; this was the one that had been bitten and isolated.

Abortive Leprosy and Grave Leprosy.—All the experiments in way of traumatism to which we have just been referring have produced in our rats examples of benign leprosy only, that is to say, of the glandular leprosy recognisable only at the autopsy; but they have also given rise to the development of the tubercles and ulcers sometimes met with in captured rats. They were carried out with materials almost pure.

In order to obtain a rapid and monstrous development of the disease of leprosy it is necessary to inoculate with microbes of suppuration, especially staphylococci, simultaneously with the specific germs. Two causes intervene to aid the multiplication of the virus: immediately, the increased leucocytic afflux which furnishes the disease with aliment; afterwards, the diminution of resistance of the organism which has become the prey of a secondary infection.

In determining the influence of superadded affections we did not limit ourselves to mere laboratory observation, for, in the spontaneous disease, in cases of musculo-cutaneous and encroaching leprosy, we always found along with the specific germs the microbes of secondary infection, of which the *rôle* has just been explained. Thus we have, in the rat as in man, abortive forms of leprosy. These are met with in greater numbers than are the cases of leprosy which lend themselves to clinical diagnosis. Thus when 5 per cent. of Parisian rats were affected with abortive leprosy, we found but 0.6 per cent. that could be designated as clinically leprous; while, in America, the latter proportion falls below 0.01 per cent. (McCoy).

Those abortive forms of the disease should undergo spontaneous cure. We have observed two examples of this which were absolutely clear. Captured rats, in which puncture of the glands had enabled us to determine the presence of specific bacilli, have completely recovered in our cages; in which they also, when liberally fed, had notably fattened. At the autopsy we found it impossible to discover a single germ in the locality in which we had found them so numerous some months previously.

Evolution.—The leprosy of rats is an essentially chronic affection. It requires from four to six months to reach a stage in which the glandular form of leprosy can be recognised at the autopsy. Experimented animals become clinically leprous only after an interval of twelve to fourteen months has elapsed since the date of inoculation. And, in whatever way infected, rats do not die of leprosy; but of an intercurrent affection: septicæmia, or broncho-pneumonia.

Conclusions.—From the study of murine leprosy a number of conclusions may be drawn that can be applied to the corresponding disease which invades the human organism. The analysis of the facts hitherto collected during observation of cases of lepra has not merely failed to indicate any want of accord with our experimental determinations, but has, on the contrary, actually come to corrobate them in the most felicitous manner.

Thus, in summarising, we find ourselves authorised to say that:—

1. The specific bacillus is one of fragile nature.
2. It is readily inoculable on organisms sensible to its influence.
3. Puncturing insects do not convey the disease.
4. Sarcoptes, demodex and flies may play an accessory *rôle*.
5. The germs are usually introduced through an erosion of the skin which is brought into contact with septic products.

6. The intact preputial mucous membrane permits the virus to pass through.

7. The lepra which is clinically diagnosticable is rare in comparison with the abortive form.

8. The abortive form of lepra may have its presence ignored even till death.

9. It may undergo spontaneous cure.

10. It may undergo transformation into the clinically manifest variety of the disease under the influence of secondary infections of the organism, or of physical decadence.

11. The hygienic treatment which succeeds with tuberculous patients is also suitable to those affected with lepra.

12. For healthy persons the prophylaxis consists of avoiding every contamination of the skin by specific germs.

CLINICAL RECORDS.

URINODIPSIA.

By J. C. McWalter, M.D., LL.D.

The Kraft-Ebing school have familiarised us with cacophagy, but there are few references in medical literature to urinodipsia. Certain savage tribes, such as the Andaman Islanders, seem to practise urine drinking when a narcotic has been swallowed, and it appears to be not infrequent in the lower animals.

A child (female, æt. 3) is at present under my care suffering from urinodipsia. It is usually considered a species of pica, or depraved appetite, and apt to be attributed to the presence of worms. The present case is interesting, because the child suffers from a troublesome pustular eczema, and the question arises whether its urine-drinking proclivities are an instinct of nature to cure the eczema, for this particular form is amenable to vaccine treatment. Herbert Spencer lays down that all life-giving instincts are pleasure-giving instincts, and it is at least credible that this child's craving for urine is due to some instinct for auto-vaccination by the products of metabolism in the urine.

OPERATING THEATRES.

HAMPSTEAD AND NORTH-WEST LONDON HOSPITAL.

Open Operation for Dislocation at the Elbow-Joint.—Mr. Jackson Clarke operated for complete outward dislocation of the elbow-joint. The patient, a girl, æt. 11, had fallen on the elbow 12 days previously and there was a history that the dislocation had been reduced at the time but it had relapsed. The elbow was greatly deformed: the internal condyle projected under the skin, which had begun to ulcerate, the external condyle was impalpable, only the head of the radius, which caused a large projection, and the upper end of the ulna were easily felt on the outer aspect of the joint.

At the operation, the patient having been fully anæsthetised the usual manipulations were patiently tried; the elbow-joint was hyper-extended and the forearm drawn down and abducted, the latter movement with a view of disengaging the upper end of the ulna from the outer aspect of the lower end of the humerus, and finally pushing the displaced bones inwards. After persevering in these manipulations for some minutes it became evident that open operation would be required The parts having been repainted with iodine solution an incision was made along the outer border of the tendon of the triceps and prolonged along the inner side of the acromion process. As soon as the muscle had been divided the joint surfaces of the displaced radius and ulna were seen, and on retracting the triceps inwards the outer condyle of the humerus became visible. over it the persistent attachment of the external lateral ligament was torn away and had carried with it a small portion of the lower epiphysis. The dislocation now was easily reduced by introducing through the rent in the capsule a blunt dissector across the lower surface of the humerus, and using it as a guide for the ulna to move along inwards. The joint just restored was found to be most unstable, and therefore the detached ligaments, etc., on the outer side of the joint were carefully reunited by catgut sutures, with the result that the tendency to re-dislocation was removed. The limb was put up in an external angular splint.

Mr. Jackson Clarke remarked that even a sprain may involve laceration of a tendon sheath or a complete tear across a ligament or the detachment of a point of bone to which a ligament is attached, and the best assistance that can be given to nature is an operation to expose and restore the continuity of the injured parts. In a case of dislocation the torn ligament or a displaced tendon or some other resistant structure may make reduction by manipulation impossible, and in many dislocations where ligaments are badly torn, an open operation ensures to the patient a complete restoration of the normal function in a much shorter time than can be obtained in any other way; in some cases conservative measures result in impaired functions and long continued pain.

The stitches were removed on the ninth day, the wound having healed by first intention. Slight passive movement at the elbow was commenced on the fourteenth day.

CORRESPONDENCE.

FROM OUR SPECIAL CORRESPONDENTS AT HOME.

SCOTLAND.

The War.

In Edinburgh the first two important happenings in the medical world which were brought about by the outbreak of war were organisation of the profession at home to meet with the difficulties caused by the mobilisation of many civilian practitioners for service with the forces, and the mobilisation of the 2nd Scottish General Hospital, which has its headquarters at Edinburgh. In the first of these fields, the Scottish Committee of the British Medical Association and the Universities and Colleges have a medical Service Emergency Committee, with Dr. Norman Walker as Convener. It is understood that about 300 Scottish practitioners have been called up, and that more are liable to go at a moment's notice. The difficulty of securing that their practices be attended to in their absence is obvious, the more so as locum tenentes are very scarce, and the rate of remuneration they expect tends to rise. To cope with this emergency, the Committee suggest: (1) that the fee offered to a locum tenens for a practitioner on military service should not exceed £5 5s. per week; (2) that retired practitioners should give their names to the Emergency Committee for registration and ultimate allocation to temporary vacant practices; (3) that School Medical Officers should be allowed to give part of their time to general work; (4) that the visiting staffs of hospitals and similar institutions should reduce the numbers of residents and clinical assistants and undertake a part of the work themselves; (5) that in large towns young practitioners whose practices are not very extensive should "pair," so that alternately one may act as locum tenens in the country while the other does both practices in the town. The Committee point out that the needs of the civil population must be met, and that whoever relieves a colleague in the field is *ipso facto* also serving his country in time of need. Communications from practitioners offering or requiring assistance as above should be addressed to the Convener, Medical Emergency Committee, Royal College of Physicians, Edinburgh.

As in other towns, arrangements have been made whereby the dependents of soldiers at the front will receive medical attention gratuitously, and medical representatives have been appointed on the local committees which will distribute relief under the Prince of Wales' and other funds. Very many private houses, nursing homes, convalescent hospitals, and special hospitals in the East of Scotland have placed beds at the disposal of the military authorities, and no difficulty need be anticipated in providing all the accommodation likely to be required. A great number of recently qualified men, residents in hospitals and others, have accepted temporary commissions in the R.A.M.C., with the result that the hospitals are to a certain extent being depleted of their resident staffs. Indeed, there is much reason for supposing that in the immediate future it will be difficult if not impossible to obtain anything like the customary number of House Medical Officers.

The No. 2 General Hospital was embodied immediately on the outbreak of war. Its headquarters are the Crayleith Poorhouse, the inmates of which were transferred to the Craylockhart Poorhouse. Scarcely anything was required to adapt the buildings to the new purpose, except the installation of X-ray apparatus and improved sterilisers, and the enlargement of the operating theatre. No. 2 General Hospital is under the command of Lieut.-Col. Sir Joseph Fayrer, Capt. D J. Graham is Registrar, and Hon. Lieut. C. W. Baker is Quartermaster. These constitute the permanent staff. The medical and surgical staff now mobilised consists of the following:—Lieut.-Colonels J. M. Cotterill, C. W. Cathcart, R. W. Philip and T. M. Caird; Majors William Russell, G. A. Berry, J. J. Graham Brown. J. W. Hodsdon, G. L. Gulland, D. Wallace, F. B. Boyd, and J. D. Comrie; Captains H. G. Stiles, R. Fleming H. A. Thomson, H. G. Langwill, A. Miles, H. Ramy, A. Logan Turner, D. C. Watson, W. Guy, W. T. Ritchie, J. W. Dowden, E. Bramwell, A. Scott Skerving, J. G. Cattanach, G. L. Chiene, E. Matthew, W. J. Stuart, J. Eason, E. S. Carmichael, and J. W. Simpson. Many of the other surgeons in Edinburgh are also on military or naval duty—Mr. John Fraser, Mr. Wilkie, Mr. Struthers.

Professor Greenfield, in a letter to the *Scotsman* a week or two ago drew attention to the necessity for providing for the after-care in hospitals of sick and wounded. He suggested that the central or base hospitals would be much relieved by the provision of (*a*) hospitals where only a certain amount of dressing and nursing were required, and (*b*) homes for slighter cases and convalescents. He suggests as suitable buildings for the above hydropathic hotels and boarding houses which cater mainly for summer visitors, or even factory and farm buildings, but not schools. It may be added that Professor Greenfield had experience of the conditions which prevailed in Paris in 1871, after the Commune.

In Dundee an emergency medical service has been established since the war began; the central office is at the Royal Infirmary. The main points of the scheme are: Messages from patients of absent doctors to be sent to the central office and allocated by locality and rota to doctors participating. Consultations are to be given at a central dispensary by rota among the doctors. Midwifery to be under the supervision of the maternity service of the Infirmary. The doctors who are away have signed mandates for 50 per cent. of the insurance credits being paid to the Committee, leaving 50 per cent. for their households. Adjustments will be made on the return to normal conditions.

Red Cross Work.

The Scottish Branch of the Red Cross has been divided into four districts—Western, under Lieut.-Col. D. R. McEwan; Eastern, Major David Wallace, C.M.G.; Central Eastern, Colonel Gordon Thomson; North-Eastern, Col. J. Scott Riddell. There are also Committees in every county in Scotland.

Dundee Royal Infirmary for Wounded.

The Governors of Dundee Royal Infirmary recently offered 155 beds in the Infirmary to the Admiralty as a base hospital for wounded men. The wards have now been inspected by an Admiralty representative and gratefully accepted. The Infirmary contains in all 400 beds, and the result of putting 155 beds at the disposal of the Admiralty has been to reduce greatly the accommodation for ordinary cases. Urgent cases, however, are always admitted, as well as cases requiring surgical treatment to fit them for service in His Majesty's Forces. A request from the military authorities to put at their disposal as many beds as possible has also been agreed to by the Governors.

Student Recruits.

The second contingent of recruits for the Army from Glasgow University left Glasgow on the 16th inst. for London, whence they were to proceed to Aldershot to join one of the battalions of the Cameron Highlanders which are being raised by Lochiel. The men, to the number of about 100, met at the University Union, and, preceded by a piper, marched to the station. The first contingent from this University, which left Glasgow last week for Inverness, is now at Aldershot.

Health Culture and the War.

Glasgow Health Culture Society has opened its winter session. The Committee of the Society had considered seriously the advisability of discontinuing the meetings of the Society on account of the war, but upon consideration it was decided that they could do good work in the present crisis by pointing out how people could live cheaply and healthily. With this end in view the first part of the winter programme has been made up of lectures showing attractive ways of preparing inexpensive and nourishing foods, with cookery demonstrations, and dealing with the effect of the war on the living of the people, and other phases of the question. A pamphlet is also being prepared upon the subject.

Roxburghshire Medical Service.

Roxburghshire medical practitioners have held a meeting, and decided that in the case of practitioners called away from their practices in order to afford assistance to the military or other public authorities in the present emergency, neighbouring practitioners should give such assistance as may be possible to prevent their interests being prejudiced by their public-spirited action; that practitioners remaining at home should not permit the transfer of any patients to their panel lists from that of any practitioner called away on service; that the dependents of all non-commissioned officers and men called away from their employment in the service of the country should be provided with medical service free of charge; and that the word "dependents" should include those actually dependent on the wages of those serving, but not necessarily other members of their families not so dependent.

National Insurance and the Forces of the Crown.

The Scottish National Insurance Commissioners have issued regulations with reference to the men belonging to the Naval and Army Reserves and the Territorial Force, to have effect from August 1st. While these regulations seem to involve the insurance of army reservists while on active service, the position of members of the Naval Reserve and of the Territorial Force is different. No member of these bodies need become insured who was not immediately before the commencement of service an insured person, provided that, within such time as the Admiralty or Army Council may determine, he elects not to become insured during the period of his service.

The Effects of the War.

So far as the medical profession is concerned, the war is much in evidence at home through private practices being abandoned, professorial chairs and other posts being temporarily vacated, and even hospital wards being closed, owing to the absence of those in charge of them. If it is strange to hear at this time of wards being temporarily closed in a large Glasgow hospital, no doubt they could be speedily reopened if the necessity for them were to arise.

LETTERS TO THE EDITOR.

[We do not hold ourselves responsible for the opinions expressed by our Correspondents.]

THE CRUELTY OF QUACKERY.

To the Editor of The Medical Press and Circular.

Sir,—A great deal of ignorance still prevails even among medical men as to the amount of cruelty involved in the quack medicine trade. This ignorance must be dispelled by even a casual study of the Select Committee's Report and of the volume of evidence which is to be at once issued by the Government printers. It will be evident that most harm is done by nostrums that contain no potent drug of any kind—nothing of the kind except perhaps a small dose of aloes if for internal use, or an ounce or so of coloured paraffin on cheap coloured grease for external use. They induce simple patients to rely upon them until their malady, easily curable in its initial stage, assumes soon a mortal phase without scientific treatment. These kinds of cases come under the notice of practitioners, especially among the poor, every day. They are to be found in numbers in the wards of every hospital throughout the year. Some few years ago, when acting as visitor to our local hospital, I encountered within a few weeks a number of victims of one fraudulent class of internal remedies—cures for indigestion. These were all women suffering from gastric ulcer; there was a "run" of cases at the time. They had all been taking one or other of the most advertised remedies for indigestion. Most of them contain as their sole active agent a small dose of aloes. These women were mostly at death's door; one died. She probably might have been saved by early diagnosis and treatment. I reported these cases in my pamphlet "On Quackery" a few years ago. A graphic account of the cruelty of many classes of external cures was given by Sir Malcolm Morris and Dr. Whitfield to the Select Committee. I was waiting my turn as witness, and heard their statements. They said it was quite common to encounter in hospital practice patients who had been relying upon skin "cures" until their malady, lupus, had passed beyond the stage when it is easily curable. No more terrible death after prolonged anguish and unspeakable misery can be imagined than that from lupus. To see such a case in an advanced stage due to his handiwork might turn to repentance the heart of the most cruel and cynical of the malefactors who exploit the simple people in their greed for wealth. My first initiation into this subject took place so long ago as the seventies, when I was attached to the staff of the West London Hospital. Although holding the post of an outside specialist, having, as a rule, no business in the wards, I was frequently there. One day I was present at the admission of a case under the late Mr. Teevan. It was a woman suffering from cancer of the breast in a stage which even nowadays (Listerism was then only beginning) would probably be deemed beyond operation. She said that without any medical advice she had treated it throughout with the most advertised heal-all ointment of the day. She went home to die. I visited her home, and made the acquaintance of the father, a platelayer on the G.W.R., and of the eldest daughter, who mothered the little ones. This case made literally a tremendous impression upon me, and nearly turned me into a bore on the way to fanaticism. I made a great talk about it among my friends at the hospital, and they all kept up a more or less keen look out for cases. They occurred in numbers in everyone's experience. My colleagues are all dead. There were Teevan and Alfred (afterwards Sir Alfred) Cooper, surgeons; there were Sims, physician; Bowater Vernon, ophthalmic surgeon and Wiltshire obstetric. They used all to "put me on" to cases. I possessed a great portfolio of written cases; these were all destroyed with more seemingly useless papers when I moved into the country twenty-five years ago. The same kind of cases are to be found in every hospital at the present day. My memory holds still many striking illustrations. I recollect a case of aneurysm of the aorta admitted dying. He had been treating himself with some "magic lung and cough cure" to relieve his "shortness of breath and cough." The numbers of cases of various forms of anæmia and debility, of Brights' disease and diabetes all using quack remedies until driven by suffering into the wards was very large. In the women's department were always to be found patients who had relied upon advertised "ladies remedies." These included many cases in which abortion was evidently the aim, whilst cases of uterine tumour or cancer or disease of the ovaries were quite common. In the eye department a large percentage of cases had gone to ruin under the use of universal eye cures warranted sure remedies for every ophthalmic ailment from conjunctivitis to cataract.

I may return to this queston again; it might easily fill many letters.

I am, Sir, yours truly,
Henry Sewill.

The Old Rosery, Earlswood Common.
September 17th.

A WARNING AGAINST UNQUALIFIED ASSISTANTS.

To the Editor of The Medical Press and Circular.

Sir,—At a meeting of the Executive Committee of the General Medical Council held to-day, the President made a statement in regard to certain correspondence received by the Registrar respecting unqualified locum tenentes and kindred matters, and the steps that had been taken in regard thereto.

He read the following letter, which had been sent to the practitioners concerned, which the Committee approved and directed to be entered in the minutes:—

"Sir,—With reference to your letter of ———, I am directed by the President of the General Medical Council to inform you that, in terms of the enclosed warning notice, any registered practitioner who entrusts his professional practice to an unqualified person or who signs medical certificates on such person's behalf, renders himself liable to be summoned before the Council, and after due inquiry, to be adjudged guilty of grave professional misconduct.

"The circumstances of the present situation do not, in the President's opinion, afford any excuse for action which the Council has described as 'fraudulent and dangerous to the public health.'

"Means are available whereby the services of registered practitioners can be obtained in substitution of those of practitioners who may be called away from civil practice on military service; and it is the plain duty of the latter to make arrangements for the proper professional treatment of their ordinary patients during their absence.

"I am to add that copies of your letter, and of this reply, will be laid before the Council, should occasion arise, for a judicial inquiry into the matter.

I am, etc.,
——— Registrar."

I am, Sir, yours truly,
A. J. Cockington,
Acting Registrar, G.M.C.

September 15th, 1914.

FORCIBLE FEEDING.

To the Editor of The Medical Press and Circular.

Sir,—If Dr. Sers, instead of making baseless "inferences," would discuss the facts about forcible feeding and the repulsive actions of the prison officials for which our profession is being made responsible, and which I gave in my letters of August 26th and September 9th, this matter might be advanced. So also if he would but read up the literature of the subject.

He now admits that his only knowledge of the facts is what he has gathered from the brief abstracts published in newspapers under the severe boycott to which the Press during the last two years has subjected the whole question of national enfranchisement. He might have remembered that truth in politics as well as in science is only to be arrived at by reading original documents. Had he read Hansard as I suggested he should, he would not have repeated the absurdly false statement that the Cat and Mouse Act had succeeded. Mr. McKenna told the House of Commons that that Bill would do several things—

(1) It would put an end to forcible feeding.

(2) It would compel prisoners to serve their sentences.

(3) It would stop outrages.

It has done none of these things, and for the simple reason that in its provisions it violated all the principles of British law and justice. Had it succeeded, then I could understand Dr. Sers bringing it forward, for at least the reputation of our unfortunate profession would have been cleansed (for the future) from the foul stain of torture now upon it.

I earnestly wish that after Dr. Sers has tried to meet the facts I quoted showing that forcible feeding as practised in H.M. prisons is not, as he asserted, either medical or legal, he would cease to approve of treating people who ask for national enfranchisement in the same way as his anti-suffragist prototype the German Emperor treats poor people who only want to be let alone—namely, by first goading them into committing assaults and then by brutally torturing them.

Outrages are the inevitable symptom of the disease of non-enfranchisement, which is slavery. It is our duty to prevent such disease, and, further, history shows that when outrage has been bred by bad treatment, this disease of the community disappears directly the selfish and arrogant, who, like the Pharisee, think they alone are fit to have the vote, recognise that liberty and justice must be conceded to their fellow subjects.

Burton said 250 years ago: "He who cures a disease is the cleverest, but he who prevents a disease is the wisest physician."

But whether I succeed in getting Dr. Sers to agree that prevention is better than trying to cure by brutality does not matter so much as that he should recognise it is our duty as members of an honourable profession to clear its reputation from the accusation that it is the instrument of a torture executed under the now cynically abandoned excuse that it is medical treatment. If Dr. Sers cannot justify his position by rebutting facts, then let him join us in our war against inhumanity.

I am, Sir, yours truly,

Victor Horsley.

OBITUARY.

SIR HENRY HOWSE.

We regret to announce the death of Sir Henry Greenway Howse, M.S., D.Sc., late President of the Royal College of Surgeons of England. The deceased, who was the second son of Mr. Edward Howse, was born at Lyncombe Hall, near Bath, in 1841. He received his education at University College School and Guy's Hospital. In 1868 he became F.R.C.S., and two years later was appointed Assistant Surgeon to the hospital, being elected full Surgeon in 1874. He was Lecturer in Anatomy and Surgery in the Medical School, and was first elected on the Council of the Royal College of Surgeons in 1889. He was Bradshaw Lecturer at the College in 1899, and Hunterian Orator in 1903. Sir Henry was elected to the honourable position of President in 1901, and he held office for three years. He was also a member of the Senate of the University of London, Surgeon to the National Truss Society, and Consulting Surgeon to the Evelina Hospital. He was the author of numerous papers and articles on excision of the knee, tracheotomy in childhood, and other surgical subjects. The honour of knighthood was conferred upon him in 1902.

REVIEWS OF BOOKS.

PSYCHO-ANALYSIS. (a)

Whatever opinion may ultimately be formed as to the scientific and practical value of the teachings of Freud, it must be admitted that he is an original and highly suggestive thinker. It may be that he casts his net too wide, that sexuality is not the open sesame of all the doors of character, and that his clinical analyses as frequently reveal his own mentality as the mentality of his patients. But he who would succeed in proving all this would, nevertheless, have gone but a little way to discredit the value of Freud's teachings.

We take it that the most important element in his work is his insistence on the importance of the subconscious. He is, of course, not the first to insist on this, but he has given us a more complete idea of what we may call the machinery of the sub-conscious than any previous psychologist. We have, indeed, advanced far from the seventeenth century discussions of Locke and others as to the essence of the soul being consciousness. "Whether the soul always thinks" has for us a very different meaning from what it had for Locke. We know now that all our conscious actions have their roots deep down in the sub-conscious. Our motives are formed in the subconscious, and the process of their formation, prior to their emergence in consciousness, is one of highly complicated psychical dynamics and chemistry. He who probes into these obscure matters must make many blunders, must employ many mistaken hypotheses, before he reaches truth. We should honour the searcher for his courage and for whatever truth he brings from the well rather than blame him for the mud which his bucket necessarily lifts.

We welcome warmly, therefore, any serious and honest attempt to make Freud's views more widely known. It is only by careful study of them that we can hope to separate the grain from the chaff. Dr. Ernest Jones is a whole-hearted disciple, but an admirable interpreter. In this volume he has collected a number of papers on various aspects of Freudianism which he had published within the past few years. Some of them deal with purely psychological questions, others are more directly clinical. All deserve careful study. He writes clearly on the most complex problems. Like other Freudians, he is least convincing in his records of clinical analysis. In not one of those he quotes does he succeed, to our thinking, in establishing even a tithe of what he claims. Anything may be the symbol of anything else, and the most innocent associations are given a phallic basis. Space forbids us to follow Dr. Jones in detail, but we have a high opinion of the value of his work.

A NEW VIEW OF NATURAL SELECTION. (a)

Dr. Mottram has written a suggestive little book. He has put forward an interesting hypothesis, but he frankly admits that he has not attempted to prove it. He has, however, enumerated many curious occurrences in nature which are explained by his hypothesis, and perhaps more readily by it than by any other which has so far been put forward. While agreeing in the main with Darwin's doctrine of the origin of species, Dr. Mottram holds that in Darwin's theory of sexual selection there is a certain weakness. He endeavours to show that the occurrence of secondary sexual characters is a necessary part of natural selection, and that sexual choice is unnecessary as a factor in evolution.

Dr. Mottram suggests that the biological unit, in the highest grades of life at any rate, is not the individual, but the pair or family. Of the pair, the female is, of course, the more important. The male's duty to the race is momentary, the female's continous. Of the family, the young are more important than the old. It is, therefore, an advantage to the female, and through her to the race, when the male is so conspicuous as to attract enemies to himself, and thereby detract them from her. Similarly, attraction of enemies to the parents is an advantage to the young. Dr. Mottram shows by many ingenious examples that it is not only by his conspicuous appearance and voice, for example, that the male attracts attention and is more exposed to danger than his mate. The usual position of the sexes in copulation, for instance, exposes the male to attack much more than the female. Dr. Mottram shows, too, that conspicuous colouring of the male most frequently occurs in birds that are most liable to be attacked. It is not marked, for instance, in birds of prey, in night birds, or in birds, such as the corncrake, that inhabit deep undergrowth.

(a) "Papers on Psycho-Analysis." By Ernest Jones, M.D., M.R.C.P.Lond. Pp. xvi. and 432. Demy 8vo. London: Bailliere, Tindall and Cox. Price 10s. 6d.

(a) "Controlled Natural Selection and Value Marking." By J. C. Mottram, M.B. Pp. x. and 130. London: Longmans, Green and Co. 1914. Price 3s. 6d. net.

Dr. Mottram might have done better had he devoted the time and the study necessary to offer some proof of his theory. As it is, he has merely suggested an hypothesis and adduced a variety of facts in support of it. He has, however, written an interesting book.

NEW BOOKS AND NEW EDITIONS.

The following have been received for review since the publication of our last monthly list:—

Arnold, Edward, London.
The Brain in Health and Disease. By Joseph Shaw Bolton, M.D., D.Sc.Lond., F.R.C.P.Lond. Pp. 479. Price 18s'

Bailliere, Tindall and Cox (London)
Aids to Dental Antomy and Physiology. By Arthur S. Underwood, M.R.C.S., L.D.S. Third Edition. Pp. 136. Price 2s. 6d.
Cane Sugar and Heart Disease. By Arthur Goulston, M.A., M.D.Cantab. Pp. 107. Price 5s. net.
The Intensive Treatment of Syphilis and Locomotor Ataxia by Aachen Methods. By Reginald Hayes, M.R.C.S., etc. Pp. 64. Price 3s. 6d.
Physiological Principles in Treatment. By W. Langdon Brown, M.A., M.D.Cantab., F.R.C.P. Third edition. Pp. 408. Price 5s.

Churchill, J. and A. (London).
A Manual of Minor Surgery and Bandaging. 15th Edition. By H. Morriston Davies, M.D., M C.Cantab., F.R.C.S. Pp. 467. Price 7s. 6d. net.
Transactions of the Ophthalmological Society of the United Kingdom. Vol. XXXIV. Session 1914. Pp. 339. Price 12s. 6d. net.
Remedial Exercises in Schools and School Clinics. By R. C. Elmslie, M.S., F.R.C.S. Pp. 19. Price 1s. net.

Griffin, Charles and Co., Ltd. (London).
A Surgical Handbook. By Francis M. Caird, M.B., F.R.C.S.Ed., and Charles W. Cathcart, M.B., F.R.C.S 16th Edition. Revised and enlarged. Pp. 364. Price 8s. 6d.

Kimpton, Henry (London).
Nutrition: A Guide to Food and Dieting. By Charles E. Sohn, F.I.C., F.C.S. Pp. 256. Price 3s. 6d. net.

Lewis, H. K. (London).
Mechano-Therapeutics in General Practice. By G. de Swietochowski, M D., M R.C.S Pp. 141. Price 4s.
Public Health Laboratory Work. By Henry R. Kenwood, M.B., F.R.S.Edin., D.P.H. Sixth edition. Pp. 418. Price 10s.
The Vaccination Question in the Light of Modern Experience; An Appeal for Reconsideration. By C. Killick Millard, M.D., D.Sc. Pp. 244. Price 6s.

Livingstone, E. and S. (Edinburgh)
Botany: Part I. Second edition, revised and enlarged. Pp. 80. Price 1s.
Medicine: Part II. Second edition, revised and enlarged. Pp. 180. Price 1s.

Longmans, Green and Co. (London).
Methods of Quantitative Organic Analysis. By P. C. R. Kingscott, D.I.C., etc., etc., and R. S. G. Knight, D.I.C., etc., etc. Pp. 283. Price 6s. 6d.

Medical Publishing Co., Ltd., The (London).
The Operative Treatment of Fractures. By Sir W. Arbuthnot Lane, Bart., M.S., F.R.C.S. Second Edition. Pp. 184. Price 10s.

Murray, John (London).
Nature and Nurture in Mental Development. By F. W. Mott, M.D., F.R.S., F.R.C.P. Pp. 151. Price 3s. 6d.

Saunders, W. B., Company (London).
Bedside Hæmatology. By Gordon R. Ward, M.D. Pp. 394 Price 15s. net.
Medical Diagnosis. By Jas. M. Anders, M.D., and L. Napoleon Boston, A M.M D. Second Edition. Pp. 1248. Price 25s.

Shaw and Sons (London).
A Handbook of Fevers. By J. Campbell McClure, M.D.Glas. Pp. 470. Price 8s. 6d.

Scientific Press, Ltd., The (London).
Standard Prescriptions for Insurance Practice. Compiled by C. H. Gunson, M.B., Ch B. Pp. 101. Price 1s.
Practical Medical Electricity. By Alfred C. Norman, M D. Edin. Pp. 226. Price 5s.

Thacker, Spink and Co. (Calcutta).
Tropical Hygiene for Anglo-Indians and Indians. By The Hon. Surgeon-General Sir Purdey Lukis, K.C.S.I., and Major R. J Blackham, C.I.E., R A.M.C. Second Edition. Revised and enlarged. Pp. 270. Price Rs. 3.

Wyman and Sons, Ltd. (London).
Letters to a Doctor and Others. By A Lover of Truth and Justice. Pp. 96.

MEDICAL NEWS IN BRIEF.

The Huxley Memorial Lecture.

We are asked by Dr. William Hunter, Dean of the Charing Cross Hospital, to announce that the Huxley Memorial Lecture on "Recent Advances in Science and their Bearing on Medicine and Surgery," by Sir Ronald Ross, K.C.B., F.R.S., originally fixed for Thursday, October 1st, has been postponed to Monday, November 2nd, when it will be delivered in the Out-patients' Hall of the Hospital at 3 p.m. The lecture will be open to all members of the profession.

Royal Medical Benevolent Fund.

At the last meeting of the Committee 18 cases were considered and grants amounting to £130 voted to 13 of the applicants. The following is a summary of cases relieved:—

Widow, aged 26 years, of M.R.C.S.Eng. who practised at Laindon. Left totally unprovided for with one child aged 21 months. Husband had been ill for some time before death. Friends only able to help slightly. Voted £10 in two instalments and referred to the Guild.—Daughter, aged 31 years, of M.R.C.S. Eng. who practised at Poplar and Bootle. Has endeavoured to earn her living by needlework, but her health has completely broken down. Voted £2, with leave to apply again in October, and referred to the Guild.—M.D. of Edin., aged 58. Health very bad and unable to practise. Has endeavoured to run a nursing home, but has not been successful owing to the illness of his wife and self. Three children unable to help. Voted £12 in 12 instalments through the Bexhill Honorary Local Secretary.—Widow, aged 44 years, of M.B.Aberd. who practised at Leylands. Has endeavoured to maintain herself by letting rooms, but has been unsuccessful lately. Two children, 14 and 16, both at school. Relieved seven times, £75. Voted £12 in 12 instalments.—Daughter, aged 63 years, of M.R.C.S.Eng. who practised at Ford, near Chippenham. Health will not allow her to work. Only income 5s. per week from friends, which pays for rent. Relieved seven times, £87. Voted £12 in 12 instalments.—Daughter, aged 58, of M.R.C.S.Eng. who practised at Dorking. Health very bad, and has recently been operated on in hospital. Only income from another charity 5s. per week. Relieved twice, £20. Voted £10 in two instalments.—Daughter, aged 64, of M.R.C.S.Eng. who practised at Liverpool. Only certain income about £13 per annum. Friends help a little. Quite a confirmed invalid. Bulk of income lost through Australian bank failure. Relieved once, £12. Voted £12 in 12 instalments.—Widow, aged 57 years, of L.R.C.P. and S. Edin. who practised at Walsall. Earns a little by taking in lodgers. Brother had used to help a little until three months ago. Two daughters unable to help. Relieved eight times, £82. Voted £12 in 12 instalments.—Widow, aged 43 years, of L.R.C.P. and S. Edin. who practised at Ellesmere Port. Seven daughters, aged 4 to 17. Only income about £57 per annum. Tried to supplement income by taking in boarders, but not successfully in consequence of large family. Relieved twice, £24. Voted £12 in 12 instalments and referred to the Guild.—M.R.C.S.Eng., aged 81 years, who practised at West Kensington. Now quite blind. Lost all his savings in assisting his family. Eldest son now practically blind and unable to work; lives with the father. Joint income less than £50 per annum. Relieved once, £12. Voted £2 and deferred for further investigation.—Widow, aged 57, of L.R.C.P. and S. Glasg. who practised in Ireland and London. Endeavours to earn a living by taking in boarders, but recently has not been very successful and health has been indifferent. Relieved three times, £15. Voted £10 in two instalments.—Daughter, aged 58, of M.R.C.S.Eng. who practised in London. Has no income and too ill to work. Lives with a delicate friend who has a very small pension. Relieved nine times, £94. Voted £12 in 12 instalments.—Widow, aged 64, of M.R.C.S.Eng. who practised at Ash. Health very indifferent. Five children; none able to help. Rent paid by her brother. Relieved once, £12. Voted £12 in 12 instalments.

Contributions may be sent to the Hon. Treasurer, Dr. Samuel West, 11 Chandos Street, Cavendish Square, London, W.

St. Bartholomew's Medical School.

It has been decided to cancel the St. Bartholomew's Old Students' Dinner, which had been arranged for October 1st. The Medical School will reopen as usual for the winter session on October 1st.

The Gresham Lectures in Physic.

Dr. F. M. Sandwith, Gresham Professor of Physic, will give a course of four lectures on heredity, at Gresham College, E.C., on October 6th, 7th, 8th, and 9th, at 6 p.m. on each day.

A Farm Colony for Consumptives in Renfrewshire.

The plans prepared by the Joint Sanatorium Board of the County of Renfrew for the erection of the County Sanatorium and Farm Colony at West Mitchelton and Peockstone Lochwinnoch, have been approved by the Paisley Town Council. The estimated cost will be £23,811.

Middlesex Hospital Medical School.

The opening of the winter session, 1914-15, will take place as usual on Thursday, October 1st, at 3 p.m., when an address will be given by Sir C. Hubert Bond and the prizes for the past year will be distributed by Sir John Bland-Sutton in the museum which forms part of the new Institute of Pathology.

Owing to the war no formal invitations will be issued, but all who are interested in the Hospital and Medical School are cordially invited to be present. The annual dinner has been postponed.

Army Medical Service—Royal Army Medical Corps.

The following are granted the temporary rank of Lieutenant:—P. Northcote, M.B. (September 2nd), A. W. Addinsell, M.B. (September 9th), W. W. Deane (September 10th), W. B. Bannerman, W. E. M. Armstrong, M.D., L. E. Owen (September 11th), D. J. Thomas, M.D., W. Kennedy-Taylor (September 12th), H. R. Knowles, M.B., T. L. Ingram, C. E. Reckitt, J. L. Lawry, M.D., W. H. Swaffield, M.D., F.R.C.S. Edin., J. E. L. Keyes, M.B., M. Nicoll, M.B., V. Glendinning, F.R.C.S. (September 14th), J. J. A. Sherry, J.P., E. C. Lindsay, M.B., F.R.C.S., G. E. Neligan, M.B., F.R.C.S., H. A. Lake (September 15th).

Royal Colleges of Physicians and Surgeons, England.

At the special examination in Practical Pharmacy, held on the 10th inst, the following candidates were approved:—Lindsey W. Batten, B.A.Cantab., William H. Blakemore, Frank B. Bull, Ahmed T. Dabbous, Richard J. Dacre, Thomas W. David, J. K. Davies, Cuthbert L. Emmerson, James B. Fairclough, Cecil C. Harrison, B.A.Cantab., Geoffrey W. King, James Stuart Leslie, George S. B. Long, William K. A. Richards, John D. Rutherford, B.A.Cantab., J. H. Sewart, Cuthbert Shaw-Crisp, William G. L. Wambeek.

The Royal Institute of Public Health.

The Royal Institute of Public Health is authorised by the War Office to enrol recruits for the Royal Army Medical Corps, who should be between the ages of 18 and 35. In the case of desirable men, the minimum height may be 5 ft. 3 in., and chest measurement 34 in. Vision at least 6/24 with each eye, or 6/6 with one eye and 6/60 with the other, in each case without glasses.

Men possessing special experience, such as is evidenced by sanitary inspectors, chemists (pharmaceutical), or advanced first aid certificates, are especially invited to offer themselves. Enlistment for three years or for the war only. Applications, stating age, qualifications, etc., to be addressed to the Secretary, 37 Russell Square, London.

The Health Committee Week.

That highly energetic organisation, the Health Week Committee, had arranged their annual observance to take place in November next, both in the United Kingdom and in other parts of the Empire. Over 100 towns and districts had promised their support, or nearly twice the number reached in any previous year. The outbreak of the war, however, has compelled the Committee to postpone these arrangements for the time. It has been proposed to redirect the organisation so as to help in the relief of stresses of various kinds arising out of the war, but the matter is still in abeyance. The Chairman of the General Committee is Sir T. Vansittart Bowater, Lord Mayor of London, the Executive Chairman Dr. A. Bostock Hill, and the Secretary Mr. E. White Wallis. All communications should be addressed to the last named at 90 Buckingham Palace Road, London, S.W.

MEDICAL WAR ITEMS.

It is reported that Russian patients under the care of German specialists in German nursing homes were ruthlessly expelled when war was declared, and in several cases this harsh treatment had fatal results. Russian doctors at a conference in Moscow this week passed a resolution protesting in the name of the medical world against the brutality of their German brethren.

It is announced that owing to increasing pressure of work, the headquarters of the British Red Cross Society are now transferred from Devonshire House to the spacious accommodation at 83, Pall Mall, which has been placed at the Society's disposal by the generosity of the Committee of the Royal Automobile Club, the owners of the building. The offices will be found next door to the Automobile Club.

The City of London Lying-in Hospital is doing its share towards helping the Belgian refugees by taking in maternity cases.

At University College Hospital all the resident staff and 24 nurses have proceeded on active service, their places being taken by old members of the staff. At the London Hospital 13 of the resident staff, as well as many from the Medical School, have left or are leaving for the front.

Provision has been made at the Alexandra Palace in North London to accommodate 3,000 refugees—men, women and children. On Monday last the number was close on 1,000. Dr. Herbert E. Cuff, of the Metropolitan Asylums Board, is the Chief Medical Superintendent, and there is a large staff of matrons, nurses, and other male and female attendants necessary for the carrying out of the ordinary routine of a home and hospital. The great concert hall has been converted into a mess-room.

NOTICES TO CORRESPONDENTS, &c.

☞ Correspondents requiring a reply in this column are particularly requested to make use of a *Distinctive Signature or Initial*, and to avoid the practice of signing themselves "Reader," "Subscriber," "Old Subscriber," etc. Much confusion will be spared by attention to this rule.

SUBSCRIPTIONS.

Subscriptions may commence at any date, but the two volumes each year begin on January 1st and July 1st respectively. Terms per annum, 21s; post free at home or abroad.

Foreign subscriptions must be paid in advance. For India, Messrs. Thacker, Spink and Co., of Calcutta, are our officially-appointed agents. Indian subscriptions are Rs. 15.12. Messrs. Dawson and Sons are our special agents for Canada. For South Africa, The Record Publishing Co., Cape Town. Messrs. Geo. Robertson and Co., of Sydney and Melbourne, are our special agents for Australia.

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The following reductions are made for a series:—Whole Page, 13 insertions at £3 10s.; 26 at £3 3s.; 52 insertions at £3, and pro rata for smaller spaces.

Small announcements of Practices, Assistancies, Vacancies, Books, etc.—Seven lines or under (70 words), 4s. 6d. per insertion: 6d. per line beyond.

M.B.Edin. (Leeds).—Recent experiments go to show that the average food requirement for combustion alone for infants during the first four days of life is 1.9 calories per hour per kilo. of body weight.

Sanitatum (New Brighton).—Slowly but surely the growth of knowledge in sanitary matters leads to the passing by municipal authorities of measures that make directly for the better health of the communities placed under their charge. Not long ago the city of Bombay voted in favour of the closing down of mosquito breeding wells with a view of preventing malarial fever in the district.

BACTERIOLOGICAL EXAMINATION OF WATER.

In 1903 the Royal Institute of Public Health appointed a committee under the chairmanship of the late Sir Rubert Boyce to consider the methods employed in the bacteriological examination of water in temperate climates, and to draw up a scheme of uniform procedure in such examination. The committee has now presented its report, copies of which may be obtained on application to the offices of the institute.

J. E. S. (Liverpool).—The Surrey Hills Hydro, at Caterham, would probaby suit the purse as well as the case of your patient "of moderate means." The establishment is under the personal superintendence of a well-qualified physician, inclusive terms can be arranged at 2½ guineas weekly, and electric, Nauheim, brine baths, etc., form part of the extensive equipment. Alcohol, however, is not allowed during treatment.

BRITISH THROUGHOUT.

Now that the question as to the share of Germans in our industrial enterprises is being so much discussed, we insert with pleasure the statement that all the shares of Ronuk, Ltd., makers of the floor polish so largely used in hospitals, are all held by Britishers, while the Board and the whole of the staff are also Britishers.

Dr. T. A. (London, S.E.).—A complete account of the complex mechanism involved in Abderhalden's reaction is contained in the English translation of his work on "Defensive Ferments of the Animal Organism," by J. O. Gavrousky, M.D., and W. F. Lanchester, M.A., published by Messrs. John Bale, Sons and Danielsson, Ltd.

L.S.A. (Herts).—Pleurisy in childhood is more often pneumococcal than is generally supposed. When empyema supervenes the condition is relatively benign and the effusion may sometimes be absorbed without surgical interference.

Vacancies.

Hulme Dispensary, Dale Street, Stretford Road, Manchester.—House Surgeon duly registered and fully qualified. Salary £180 per annum. Annual increase £10 to £200, with apartments, attendance, coal, and gas. Applications, with testimonials, at once to Honorary Medical Secretary. (See advt.)

Yardley Road Sanatorium and Anti-Tuberculosis Centre, Birmingham.—Third Assistant Medical Officer. Salary £200 per annum, with board and residence. Applications to the Medical Superintendent.

Manchester Northern Hospital for Women and Children, Park Place, Cheetham Hill Road.—House Surgeon. Salary £120 per annum, with apartments and board. Applications to Mr. Hubert Teague, Secretary, 38 Barton Arcade, Manchester.

Royal South Hants and Southampton Hospital.—House Physician.—Salary £120 per annum, with rooms, board, and washing. Applications to T. A. Fisher-Hall, Secretary.

Victoria Hospital, Burnley.—Second House Surgeon. Salary £135 per annum, with residence, board, and washing. Applications to F. A. Hargreaves, Hon. Sec., 7 Grimshaw Street, Burnley.

Whitehaven and West Cumberland Infirmary.—Resident House Surgeon Salary £150 a year, with board, washing, and attendance. Applications to the Secretary at the Infirmary, Howgill Street, Whitehaven.

Winsley Sanatorium for Consumption.—Assistant Resident Medical Officer.—Salary £150 per annum, with board, residence, and laundry. Applications to Frederic Jones, Secretary, Winsley Sanatorium, near Bath.

Winsley Sanatorium for Consumption.—Senior Resident Medical Officer. Salary £300 per annum, with board, residence, and laundry. Applications to Frederic Jones, Secretary, Winsley Sanatorium, near Bath.

City of Westminter Union.—Second Assistant Medical Officer. Salary £160 per annum, with board, residence, and washing Applications to the Medical Superintendent.

City of Westminster Union.—Third Assistant Medical Officer. Salary £140 per annum, with board, residence, and washing. Applications to the Medical Superintendent.

Certifying Factory Surgeons.—The Chief Inspector of Factories announces the following vacant appointments:—Buncrana (Donegal), Carrickfergus (Antrim), Leven (Fife).

Appointments.

Clarke, A. I., L.R.C.P. and S.Edin., L.R.F.P.S.Glasg., Assistant Medical Officer to the Infirmary, Bagthorpe, Nottingham.

Cookson, Henry Anstey, M.B., Ch.B.Edin., House Surgeon to the Torbay Hospital, Torquay.

Gordon, J., L.R.C.P.Irel., F.R.C.S.Irel., Certifying Surgeon under the Factory and Workshop Acts for the Ballyshannon District of the County of Donegal.

Hamilton, G., M.B., B.S.Lond., Certifying Surgeon under the Factory and Workshop Acts for the Ashton-under-Lyne District of the County of Lancaster.

Hichens, William, L.R.C.P.Lond., M.R.C.S., District Medical Officer by the Redruth (Cornwall) Board of Guardians.

Kelly, G., M.B., B.S.R.U.I., Certifying Surgeon under the Factory and Workshop Acts for the Belleek District of the County of Fermanagh.

Rivers, William Gregory, M.B., Ch.B.Edin., Senior Medical Officer and Deputy Superintendent to the Cornwall County Asylum, Bodmin.

Sylvester, H. M., M.R.C.S., L.R.C.P.Lond., Certifying Surgeon under the Factory and Workshop Acts for the Leiston District of the County of Suffolk.

Births.

Bray.—On September 12th, at the Vicarage, Fordingbridge, the wife of Lt.-Colonel H. A. Bray, R.A.M.C., attached Egyptian Army, of a daughter.

Cane.—On September 19th, at Colaba, Bombay, the wife of Capt. Geoffrey Cane, R.A.M.C., of a son.

Cohen.—On September 11th, at Kingston, Sidmouth, S. Devon, to Dr. and Mrs. Bertram Cohen—a daughter.

Cross.—On September 16th, at 76 Cooper Street, Bolton (Lancs), the wife of H. C. D. Cross, M.B.Edin., of a daughter.

Fortescue-Brickdale.—On September 13th, at 52 Pembroke Road, Clifton, Bristol, the wife of J. M. Fortescue-Brickdale, M.A., M.D., M.R.C.P., of a son.

Harley.—On September 14th, at Kittery, Paignton, the wife of John Alexander Harley, M.B., Ch.B., West African Medical Staff, Gold Coast, of a daughter.

Hughes.—On September 18th, at 37 Queen Anne Street, Cavendish Square, W., the wife of E. C. Hughes, M.A., M.C. Cantab., F.R.C.S.Eng., of a son.

Leigh-Canney.—On the 20th September, at 33 Buckland Crescent, Hampstead, N.W., the wife of Dr. H. E. Leigh-Canney, of a daughter.

Pearce.—On September 16th, at Enfield House, Bury Old Road, Manchester, the wife of Dr. P. Leslie Pearce, of a daughter.

Taylor.—On September 12th, at 47 Campden House Court, W., the wife of C. H. S. Taylor, M.D., of a daughter.

White.—On September 15th, at West Knoll, Bournemouth, the wife of Edward How White, M.B.Oxon, of a son.

Marriages.

Barker—Drake.—On September 15th, Francis James Barker, M.A., M.B., C.M., younger son of Henry Martyn Barker, Esq., M.A., LL.D., of Banchory, Deeside, N.B., to May, youngest daughter of the late James Drake, Esq., J.P., of Yorkshire.

Bowkett—Goodwin.—On September 15th, at St. Anselm's, Hatch End, Leonard Howard Bowkett, M.R.C.S.Eng., son of the late Dr. Bowkett, of Poplar, and Mrs. Bowkett, to Millicent Jessie, elder daughter of the late Walter Ferguson Goodwin and Mrs. Goodwin, Hatch End, Middlesex.

Coombs—Hudson.—On September 16th, at St. Andrew,s Church' West Kensington, London, by special licence, Harold Martin McCulloch Coombs, M.B., Royal Army Medical Corps (T.), Eastern Mounted Brigade Field Ambulance, son of Rowland Hill Coombs, M.D., D.L., J.P., of Bedford, to Ismay, youngest daughter of Sir William Brereton Hudson, K.C.I.E., of 18 Gledstanes Road, West Kensington.

Edwards—Maughan.—On September 19th, at St. Mary the Virgin, Putney, Roger Bellis Edwards, M.B., B.S., only son of Dr. and Mrs. Edwards, of Tanybryn, Mold, North Wales, to Marjory, younger daughter of the late Henry G. R. Maughan and Mrs. Maughan, of 26 Putney Hill.

Nicholson—Bartleet.—On September 15th, at East Hoathly, William Arthur Nicholson, M.B., son of Lt.-Col. C. F. Nicholson, Rathgar, Dublin, to Alice Gwendoline, eldest daughter of the late Arthur Greame Bartleet of Worcestershire and of Mrs. Bartleet, East Hoathly, Sussex.

Quine—Davies.—On September 13th, at St. Paul's Church, Wimbledon Park, Albert Edward Quine, M.B., F.R.C.S., now serving as Second Lieutenant 3rd East Yorkshire Regiment, only son of Rev. E. and Mrs. Quine, of Portland, Dorset, to Amy Burnaby, daughter of the late Henry Burnaby Davies, of Dulwich, and Mrs. Davies, of Croydon, Surrey.

Smith—Van Limburg Stirum.—On September 15th, at the English Church, Amsterdam, R. Mander Smyth, M.D., eldest son of the late Mander J. Smyth, of Wolverhampton, to Countess Cecilia J. van Limburg Stirum, of Arnhem, Holland, only daughter of the late Count O. E. G. van Limburg Stirum and Baroness I. van Welderen Rengers.

Worth—Knight-Robinson.—On September 9th, at St. Saviour's Church, St. George's Square, S.W., Dr. Reginald Worth, fourth son of the late Dr. Edwin T. Worth, of Anderton, Cornwall, to Marion Catherine, youngest child of the late Godfrey Knight-Robinson, Esq., 5th Royal Irish Lancers, and of Mrs. Knight-Robinson, of Woking.

Deaths.

Barkley.—On September 17th, at St. Olaf's, New Barnet, William Barkley, M.B., of 13, Elsenham Street, Southfields, S.W.

Duguid.—On September 14th, at Sheffield, Alex. Gray Duguid, M.B., C.M.Aberd., aged 53.

Dingle.—On September 17th, at Oakville, Ontario, after operation for appendicitis, Harry Dingle, M.R.C.S., L.R.C.P.Lond., aged 42, late of Barmouth, North Wales, youngest son of the late J. W. Dingle, of North Darley, near Callington, Cornwall.

Featon-Fisher.—On September 12th, at 12 Park Road, Wimbledon, William Featon-Fisher, L.R.C.P., M.R.C.S., in his 52nd year, late of North Curry, Taunton.

Howse.—On September 15th, at The Tower House, Cudham, Kent, Sir Henry Greenway Howse, M.S., D.Sc., F.R.C.S., Consulting Surgeon Guy's Hospital, late President Royal College of Surgeons, England, in his 75th year.

Reid.—On 15th August, at 559 Reid Street, Peterborough, Canada, Lestock Holland Reid, M.R.C.S., L.R.C.P., formerly of Southsea.

Steele.—On September 20th, at Clifton Villa, Richmond Hill, Clifton, Bristol, Charles Steele, M.D., F.R.C.S., the devoted and beloved husband of Frances C. Steele, aged 76.

HULME DISPENSARY.
DALE STREET, STRETFORD ROAD, MANCHESTER.
WANTED, a HOUSE SURGEON duly registered and fully qualified. Salary £180 per annum. Annual increase £10 to £200, with apartments, coal and gas. Applications, with testimonials, at once to Honorary Medical Secretary.

THE MEDICAL PRESS AND CIRCULAR.

"SALUS POPULI SUPREMA LEX"

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NOTES AND COMMENTS.

Camp Diseases in the German Army. THE question of enteric fever and its prevention by anti-typhoid inoculation is discussed in the leading columns of our present issue. In the interval between the writing and the publication of that article, unofficial news was sent by the special correspondent of *Lloyd's News* of the outbreak of infectious disease at the seat of war in France. The exact message ran:—"Typhus has broken out among the Germans situated in the camps around Brussels and in the valley of the Dendre, near Termonde. The disease is causing fearful ravages, and already 700 Germans are reported to have succumbed." A report of this kind seems likely on the face of it to have some good foundation. It is not unlikely, however, that the disease in question is typhoid and not typhus, as a non-medical observer would readily confuse the German equivalent of enteric fever with typhus. In view of the vast numbers of men engaged in this titanic conflict and the fact that armies pass and repass over the same ground, the appearance of enteric fever is an event of deadly significance to both friend and foe.

The Changes of War. THE changes wrought by the war are of most diverse fashion. The partial extinction of the street lights in London has metamorphosed the city after dark, and both vehicles and wayfarers find themselves groping along somewhat after the fashion of men in a thick fog. The commandeering of various public and private buildings for barrack and hospital purposes has furnished unfamiliar if not always unpicturesque scenes. At Epsom a large corps of former public school and university men has been formed, and recruits have been poured thither in thousands—representing the very flower of British youth. A large camp is being formed for them in a secluded park which was being converted into a golf links by a London club. The fine old mansion is to be used as officers' quarters. A more curious transformation is that of the famous grandstand and race buildings upon the Epsom Course hard by. A Red Cross flag floats over the stand, which has been converted into a war hospital for 75 wounded soldiers. Those soldiers who are fortunate enough to be quartered here will have the benefit of the wonderfully bracing air for which the Downs are known far and wide.

Some Changes of Peace. CHANGES not less incongruous are not infrequently associated with times of peace. A striking instance is at hand in the house of the late Sir Jonathan Hutchinson in Cavendish Square, which is now converted into the head office of a firm of light and leading in the racing world. It would be difficult to imagine a greater change of occupancy for the rooms in which one of the most philosophic surgeons of recent times lived and threshed out his scientific problems. By the way, the London County Council has not yet placed a tablet on his late residence in Cavendish Square, nor, we believe, have they so far marked the dwelling place of the late Lord Lister, whose achievements in surgical science will last as long as mankind inhabits the earth. The County Council plan of denoting the houses of famous dead by descriptive tablets is most commendable, but now and then there seems to be some want of method in their administration. It is to be hoped that they will see to it that the above-mentioned names are speedily placed on this medical roll of honour.

Medical Men and War. THE medical profession has responded to the call of the country in a manner worthy of its traditions. Many medical men have joined the Army Medical Service, and not a few are at the front. In order to serve their country in this way, some have given up professional posts or have left their practices at considerable personal sacrifice. A strong movement has also been started in the profession with a view of carrying on the practices of those away at the war, so that they should receive them intact at the conclusion of hostilities. Another commendable scheme provides free medical service to the wives of the soldiers and sailors away on active service. Those medical men unable by reasons of age limit or from the nature of their work to help in the above-mentioned ways, have subscribed liberally to the various excellent funds organised for the relief of distress or for augmenting the comforts of our fighting men. One medical man, Dr. E. Hamilton Kenny, of Pendleton, has distinguished himself in both ways, for before going to the front he sent to the *Daily Sketch* Cigarette Fund a cheque for £47, representing subscriptions collected from friends. The testimony of Mr. Thomas Atkins as to the comfort of a little tobacco in the trenches is emphatic. Poor fellow, he may well be glad of a change from the noisome vapours of war to the soothing aromatic fumes of nicotia.

Women Practitioners and the War. IN few departments of medical life is the shortage of medical men so keenly felt as among the resident staffs of hospitals. So great has been the number of resident house-surgeons and house-physicians and other officers accepted for active service that in the case of several of the larger metropolitan hospitals the services of the honorary visiting staff have been requisitioned in order to carry on the ordinary routine work of seeing casualties and accidents. In the case of many provincial hospitals the salary offered for house-surgeons has been much increased, or even doubled, and yet no male applicants seem to be forthcoming. Their ranks are being filled up, as far as possible, by lady practitioners, who are now obtaining the great chance of their lives. It is not a little curious to see how lay boards that formerly set their faces strongly against female house-officers are now clamouring for them. The old opposition and prejudice have practically vanished, and medical women are at last taking their rightful place, which is being accorded to them, not merely on grounds of utility, but also on the score of general fitness for the work of a medical practitioner. Truly it is an ill wind that blows nobody any good.

Cholera in Hungary. Some few weeks ago we commented upon the part played by pathogenic organisms in actual warfare. The deadly effect of cholera spirilla has already, according to official announcements, made itself felt among the Austro-Hungarian troops. Unfortunately, cholera is a disease of rapid spread unless the most stringent precautions be taken against its insidious ravages. To keep in check such a deadly pest as true Asiatic cholera will require all the energies of the Army medical authorities, who are only too alive to the gravity of the situation. It is in the direction of prophylaxis by greater attention to the laws of camp hygiene that their main efforts will lie. At this season of the year it is said that the virulence of cholera is approaching its height, so that redoubled energy will be needed to cope with any epidemic that may occur. In the western theatre of war the disease, so far as is known, has not yet made its appearance. Meanwhile the sanitary units of the Royal Army Medical Corps may be depended upon to do their utmost in enforcing the requirements of modern hygiene upon every soldier in the field.

The Medical Roll of Honour. Week by week the sad list of casualties grows and the number of names upon the medical roll of honour increases. Among the latest names are the following:—Officers killed: Lieut. H. L. Hopkins, R.A.M.C., Lieut. J. F. O'Connell, R.A.M.C., and Captain T. Scatchard, R.A.M.C. Officers wounded: Capt. B. H. V. Dunbar, R.A.M.C., and Lieut. R. Fisher, R.A.M.C. Officers reported missing: Capt. S. Field, R.A.M.C., Capt. M. P. Leahy, R.A.M.C., Capt. G. H. Stevenson, R.A.M.C., and Lieut. F. L. Tulloch, R.A.M.C. Officer previously reported killed, now officially reported a prisoner of war, Capt. A. S. Williams, R.A.M.C.; previously reported wounded, now officially reported a prisoner of war, Lieut. J. L. Lander, R.A.M.C.; Officer previously reported missing, now unofficially reported prisoner of war, Major J. H. Brunskill, R.A.M.C.

LEADING ARTICLES.

ANTI-TYPHOID INOCULATION.

The medical care of sick and wounded British troops in the present war already shows an excellence of standard that has never been attained on any previous occasion. Since the Boer War at the opening of the century, vast strides have been made in Army medical administration, which is now being taxed to the utmost of its resources by the strain of one of the greatest wars ever known to mankind. The campaign is still in its early days: to be more accurate, it is now the thirty-seventh day of the war, and camp fevers are not likely to appear until a later stage. The interesting question now raised —namely, the possibility of preventing such epidemics—has doubtless been carefully considered from every point of view by the authorities of the Army Medical Department. One naturally thinks first of anti-typhoid inoculation, the preventive value of which is now generally admitted. A strong case, indeed, can be made out for compulsory inoculation, if only the Medical Service could find means for carrying it out amid the enormous pressure already upon their shoulders. The public press has been fully informed as to the desirability of such a step by authoritative letters from leaders of the medical profession. At the same time, other medical men have published statements that are misleading. One such correspondent in the *Dundee Courier* points out that in the South Arican War there were 57,684 cases of enteric fever amongst British troops, whereas in the Russo-Japanese War of 1904-5 there were only 200 cases. This fact he attributes to the superiority of the Japanese in sanitary equipment, and the soundness of the contention may be to a certain extent, although not wholly, admitted. In a war like that now raging on the Continent, where battles involving millions of men are waged for many days in succession over a comparatively limited field, it is obviously impossible to observe any sort of sanitation. The ground is fouled with excreta and dead bodies of men and horses, while the wells and streams and other sources of water supply are no less contaminated. Under such circumstances the protection afforded by anti-typhoid inoculation would be simply invaluable. The concluding sentence of the letter displays a colossal ignorance of the actual facts of the case. "Should our soldiers," he writes, "be asked to face the enemy on the plains of Europe and to undergo all the accompanying hardships of war, with the additional burden of fever and debility induced by inoculation?" As a rule the reaction set up by the inoculation is so slight that it is not felt by the patient, and only in rare instances is it severe enough to suspend him from duty for a few hours. As to "prolonged fever and debility" consequent upon the protective inoculation, it exists only in the perfervid imagination of the faddist in whose mind all scientific inoculations are alike accursed. Another letter from a medical man, Dr. Christopher Childs, of Looe, in the *Times* of September 23rd, takes a broad and well informed view of the situation. He brackets the two chief preventive factors together in the shape of preventive inoculation and purity of water supply, and points out that camp epidemics develop, as a rule, some time after an army has taken the field. He draws attention to a most important matter—namely, the possibility of similar epidemics in our Territorial camps; and of the necessity of adopting preventive measures therein against the infection likely to arise from imperfect camp sanitation, from contaminated soil or food, or tent and tent fittings, or through direct convection from men to men and from tent to tent. The immunity from enteric fever hitherto enjoyed by Territorial camps he attributes to the fact that they have nowhere been pitched for more than a few weeks. He quotes the experience of the Spanish-American War of 1898, when some 250,000 Volunteers were assembled, for the most part in carefully selected camps in the United States. Within eight weeks enteric fever had broken out in nearly all the regiments. In all there were 20,738 cases amongst 107,973 of the Volunteers, of whom 1,580 died in the course of five months. A Commission of Enquiry at the outset were under the impression that the disease had been conveyed and spread by contaminated water. A careful and exhaustive examination of facts, however, convinced them (1) that water was not the most important factor in the spread of the fever; (2) that only about half the cases of typhoid were recognised, the others (" abortive cases") being regarded and returned as cases of " diarrhœa," " simple continued fever," etc.; (3) that the epidemics were due in large measure to the pollution and infection of the soil of the camps; (4) that personal contact was a very important factor in the spread of the disease. From an elaborate study of over 1,000 cases the Commissioners felt convinced that nearly two-thirds of the cases were due to infection conveyed from tent to tent, of which more than half were due to infection from man to man. Whether the findings of the American Commission be fully accepted or otherwise, the investigation is of the highest significance with regard to our own Territorial camps, and Dr. Childs has rendered a public service by calling attention to the matter. While the conditions of active service are conducive neither to accurate observation nor to scientific prevention the widely differing conditions of environment in home camps bring both those desiderata within comparatively easy reach. In short, the Army Medical Department has here an unrivalled opportunity of testing on a large scale the value of protective inoculations, which might be in the first place administered only in certain camps and extended later to include the remainder, if considered desirable. The sanitary conditions of the Territorial camps, it may be assumed, will be far behind those of the fixed camps, such as those of the Curragh and Aldershot, and it is in the temporary camps that the problems will arise.

INSANITY IN IRELAND.

The last annual report of the Inspectors of Lunatics in Ireland gives us more ground for hope than most of its predecessors for many years past. The marked increase of insanity, or, at any rate, of insane persons under control, in Ireland in the life-time of the present generation has been one of the most disquieting features in the national life of that country. In 1880 the proportion of insane persons to the total population was as 250 to 100,000. The proportion rapidly increased. In 1887 it was over 300, in 1895 over 400, in 1902 it was 500, and last year it reached 571. In no year of the thirty-four was there either a decrease in the number of insane or a decrease in the proportion of insane to the total population. Of late years, however, the increment has been much less than formerly, and we may hope soon to reach a stage when the number of insane may become stationary if not retrogressive. This hope, based primarily on a study of the figures recorded for the past thirty-four years, gains strong support from the careful analysis of the age-distribution of insanity, which the inspectors have undertaken in this year's report. They have found that the tendency to mental abnormality is becoming less among the young, and that the number of insane in the first twenty-five years of adult life forms a steadily diminishing percentage of the insane. On the other hand, the number of insane in the later twenty years of adult life shows a marked relative increase, and the number of senile insane shows a comparative growth above the average. All this suggests the influence of the former large population, and gives us hope that as the preponderance of aged people in the general population diminishes, so the aged insane may also grow less. The proportion of aged people is very much greater than is generally supposed. In 1861 the proportion of those over 65 to the total population was only 4.7 per cent., whereas at present it is 10 per cent. From this it is concluded that a " maximum of senility " has been reached. The inspectors do not in their present report discuss the question of the causes of insanity. In the annual report of the Down Asylum, which has since appeared, Dr. Nolan furnishes an interesting note on this subject. He remarks on the influence exerted by passing events on the manner in which insanity manifests itself. During the past year insanity has been deeply tinged by the stirring political feeling in the district of which Dr. Nolan writes. Instead of unknown " noises," and " vague fears," and "unknown enemies," patients now listen to the commands of opposing factions in political and sectarian strife, they suffer from fear of incumbent civil war, and their enemies are those of the opposing faction. Dr. Nolan thinks that the political ferment has not only in many cases shaped the form of the attack, but that in some it has been the cause of the break-down.

CURRENT TOPICS.

Atrocities.

In the days when less news than usual has filtered through the Suppress Bureau the generality of the daily papers turn their readers' thoughts to survivors' stories and the inevitable atrocities of the enemy. The best that can be said for these tales is that they are highly partisan—and we should not like to say the worst. In the first place, evidence is the most untrustworthy thing in the world. We, all of us, know men who saw the Russians pass through England and gave them cigarettes, and on top of an overwhelming mass of testimony we have the official denial. Each side gives examples of atrocities. We know those perpetrated by the enemy. German papers have found hooked instruments for tearing the wounded on British prisoners. These are the picks carried for removing stones from horses' hoofs. Some of the stories of our papers are likely to bear as little basis. The Kaiser's policy of "frightfulness" is to terrorise law-abiding peaceful citizens, and this is assuredly impolite and unpleasant. But war is essentially unpleasant. We condemn the policy with a thousand indignant pens, and are duly illogical. There is a tendency to whine that Germany is not playing the game. To play a game implies that both sides accept an outside authority whose rules are final. The stern stuff of war admits no such interference. There are unthinkable weapons, such as the comma bacillus, but no one is even accused of using these. And to say that the other side is too rough is a poor thing. We must take the enemy as he is and beat him. But the sensational outburst of untrustworthy stories does no one any good, and their only effect will be to foster the evils they deplore. Enthusiasm need not mean lack of mental balance. Let us look at things as honestly as we can. There is a sufficiency of indisputable reasons why the German Empire must get out and get under without the help of emotional outbursts that are little credit to our cause or our intellects.

The Desiccation Treatment of Certain New Growths.

During the past few years a good deal has been heard of the destruction of morbid tissue by means of the high tension electric current. Fulguration may be regarded as high-frequency cauterisation, while diathermy consists essentially of the penetration of the tissues by heat. Dr. William L. Clark, of Philadelphia (*a*) has been experimenting for some time past with the action of high tension electric currents upon the body tissues. He has succeeded in producing a thermic action of just sufficient intensity to devitalise tissue by dehydration. The desiccation current is produced by a powerful static machine, and the size and depth of the area treated by one application depend upon the strength of the current, whether monopolar or bipolar, the frequency of the oscillations, the distance of the electrode from the body, the time of exposure, and the density of the tissues. Desiccation is stated to be applicable for the cure of moles, warts, keloid growths, lentigo, chloasma, X-ray and senile keratosis, tattoo marks, etc.; as well as for neoplasms of the bladder, urethra, rectum, larynx, throat and pharynx, nose and eye. In experienced hands there is no need for extensive destruction of tissue as the operator has complete control, even to the smallest discernible point. Localised malignant growths of the skin and mucous membrane are benefited by desiccation when taken in hand early, but the method is not curative in advanced cases of cancer. The cosmetic results of the treatment are said to be excellent, and there are no disadvantages except the expense of the electric plant.

Junketing and National Stress.

There is, we think, a general and a healthy feeling that in this time of national stress, there should be but little unnecessary festivity and junketing. We do not suggest that people should go about in sombre attire, forswear all friendly social intercourse, and give the general impression that all is lost. Far from it. We believe it to be the duty of all worthy citizens to go about their business cheerfully and take their losses—personal and financial—with courage. But we believe that their cheerfulness will be increased rather than diminished if some of the funds which, in ordinary times of prosperity, are devoted to hospitality, are devoted to the relief of those whose living is seriously interfered with by the war. We are glad to see that an example in this respect has been set by one of the small medical dining clubs in Dublin. There are, in that city as in many other centres, a number of small private dining clubs, the members of which dine in each other's houses in rotation at regular intervals. The club of which we speak, "The Phagocytes," consisting of ten members, has decided to give up its dinners for the coming winter, and has forwarded to the National Relief Fund a cheque for fifty pounds. We hope that other clubs will follow this excellent example. Their good-fellowship will not suffer and they will keep want out of many homes.

"Safe and Sane."

It is a great thing to be easily pleased, especially if the object of the attempted satisfaction is oneself. The United States of America, whose social condition has been tersely described as "a barbarism lit by electricity," is apparently in this happy position. The subject matter for its autogenous panegyric is its national festival—the Fourth of July. On this day of freedom and fireworks, liberty and lock-jaw, the American hooligan sallies forth to demonstrate his annual and inalienable right to kill, maim and destroy his fellow-man for the sacred name of freedom. In 1908, his casualty list was 5,623 killed and injured, and in 1909 the returns included 130 cases of tetanus and 215 deaths. Even the true-blooded American citizen thought this was too much and set about putting his yearly holocaust on a sounder actuarial basis. And this year the *Journal of the American Medical Association* congratulates itself on the results. Apparently there are only 1,506 casualties this year, 40 deaths and three cases of tetanus—a mere trifle. The Fourth of July is supposed to celebrate the true origin of personal liberty to the happy dwellers under the Stars and Stripes, and liberty demands her toll. Forty deaths is nothing compared with the right of a fool with a six-shooter to do as he pleases, and only an effete and old-world race would carp and cavil at so small a matter. Still, we on this side have other uses for our men at present. Perhaps the Fourth has a really beneficial influence. People whose only pleasure is noise and destruction are better off the earth. Still, at first sight, the figures do not seem to call for any great quantity of self-praise. It may be that we have a different outlook or we may have been tainted with the grandmotherly views of Governments whose tendency is more and more towards extending the responsibility of the State. Still, steaming hecatombs of slaughtered children seem a poor way of celebrating American freedom.

The Treatment of the Sick and Wounded.

A statement has recently been issued by the Press Bureau explaining the manner in which the sick and wounded of the Expeditionary Force are being dealt with after their arrival in this country. Every hospital ship proceeds to Southampton, where there are in readiness twelve specially constructed ambulance trains waiting to be despatched to various

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(*a*) *Journ. Amer. Med. Assoc.*, Sept. 12th, 1914.

centres. The exact mode of distribution is in the hands of a Surgeon-General, who is apprised by bi-weekly telegrams from all the larger military and Territorial Force General Hospitals as to the number of beds vacant in each. At the railway stations near the principal hospitals special means of motor transit is available, so that the sick or wounded soldier can be taken in comfort to the bed awaiting him. So far, it is stated that at present the opportunity of utilising private hospitals to any great extent has not arisen, as there are several thousand beds still vacant in the military and Territorial Force hospitals. The needs of the convalescent soldier are being well looked after by a Central Registry of Convalescent Homes, which has been formed by a joint committee of the British Red Cross Society and the Soldiers' and Sailors' Help Society. The general public are having ample opportunity to express their sense of gratitude to and admiration of the sick and wounded by presenting to the civil hospitals receiving them gifts of clothing, literature, tobacco, and other comforts. When their sick furlough has expired the men are required to rejoin the depôts of their regiment for refitment until they are able to rejoin their units, either in this country or abroad. Thus it will be seen that all is being done to mitigate the sufferings of those who return *hors de combat* from the arena of war.

Coca Leaves in Warfare.

Among the various suggestions put forward from time to time by well-meaning individuals for benefiting the physique of troops upon active service was the startling one made the other day by a *Times* correspondent that coca leaves should be served out to our men in the field. The anæsthetic effect of cocaine upon the mucous membranes is well known to all medical men, but the medically untrained mind cannot appreciate the consequences of a prolonged use of the stimulant. Certain of the South American natives are accustomed to chewing the coca leaves for the double purpose of staving off the feelings of hunger and of obtaining the sense of well-being produced by the stimulating effect of the drug upon the respiratory system. That cocaine, even in small amounts, possesses the power of removing fatigue and so spurring the individual on to perform some great physical feat is not denied. The question is rather, knowing the risk of the formation of the deadly and demoralising cocaine habit, whether the use of such means are justified. After all, the best stimulant the soldier can have is hope, while a firm confidence in his leaders combined with a plentiful supply of good food and pure water may, in the long run, be safely backed against any artificial methods for producing valour. The suggestion regarding the use of coca leaves may, therefore, be wisely ignored by those who have the British soldier's welfare at heart.

PERSONAL.

T.M. the King and Queen visited the Connaught Hospital, Aldershot, on Sunday last, where they were received by Sir Thomas Gallwey, Colonel Thurston, R.A.M.C., and Miss Robertson, Matron of the hospital.

Col. G. F. A. Harris, C.S.I., M.D., F.R.C.P., has been appointed an Honorary Surgeon to the King, vice Surgeon-General A. M. Crofts, C.I.E.

Dr. Walter J. Dilling, at present Lecturer in Pharmacology in the University of Aberdeen, has been appointed to the Dr. Robert Pollok Lectureship in Materia Medica and Pharmacology in the University of Glasgow.

Mr. John Augustus Hogg, M.R.C.S., L.R.C.P., of The Villa, Shardlow, Derbyshire, Medical Officer of Health for the Shardlow and Castle Donington Rural Districts, died intestate, and left estate of the value of £1,781.

Lieut.-Col. William Bullen Day (retired), M.B., B.Ch., of 52 Burton Court, Chelsea, S.W., and late of the R.A.M.C., who saw service in India and throughout the South African War, left estate of the gross value of £4,751.

Dr. Grace Giffen Dundas, wife of the Medical Officer of Health of Ramsgate, has been appointed to act as Medical Officer of Health and School Medical Officer during her husband's absence on active service with the Territorials.

Sir John Collie, M.D., will deliver the opening address before the North-East London Clinical Society at the Prince of Wales's Hospital, Tottenham, N., on Thursday, October 1st, at 4.15 p.m., on "The Doctor as a Business Man."

Dr. C. W. Saleeby, F.R.S.E., will deliver a lecture on "Patriotism at Home" on Thursday, October 1st, at 1.15 p.m., at St. Margaret's Church, Lothbury, under the auspices of the War Lectures Committee of the Prince of Wales' National Relief Fund.

Mr. Aslett Baldwin, F.R.C.S., will deliver the Presidential Address before the West London Medico-Chirurgical Society at the West London Hospital, Hammersmith, on Friday evening, October 2nd, 1914, on "The Prevention of Post-Operative Discomforts."

We regret to learn that Dr. Penrhys Evans, one of the honorary medical staff of the Kidderminster Infirmary, is lying in a grave condition, suffering from general sepsis, consequent upon pricking his finger at an operation performed at the Infirmary a few days ago. Our readers will join with us in wishing him a speedy recovery.

Much sympathy has been expressed for Dr. Hamilton Williams, of Colwall, on the death of his brother, Captain A. J. Williams, R.A.M.C., at the seat of war. Later particulars show that the deceased was attending to a wounded soldier at Cambrai when he was deliberately shot at close quarters by a German. Dr. Mary Williams, School Medical Officer for Worcestershire, is his sister-in-law.

Dr. Gerald Noel Martin, Surgeon to the Sussex County Hospital, recently appointed Temporary Surgeon to the *Cressy*, after the sinking of that cruiser was happily rescued after being in the water two hours and a half. His father was a well-known practitioner in Sheffield and for many years a valued contributor to The Medical Press and Circular.

CLINICAL LECTURE

ON

THE MEDICO-LEGAL POSITION OF THE ANÆSTHETIST. (*a*)

By J. D. MORTIMER, M.B., F.R.C.S.,

Anæsthetist to the Royal Waterloo Hospital, Central London Throat Hospital, St. Peter's Hospital, etc.

[SPECIALLY REPORTED FOR THIS JOURNAL.]

I PROPOSE in this lecture to consider solely the medico-legal position of the holder of a medical diploma, who gives an anæsthetic for some legitimate purpose such as the performance of an operation or the relief of pain. There are, no doubt, many important questions, for instance, the possibility of forcibly anæsthetising someone in order that a crime may be committed, the use of anæsthetics by unqualified persons, and so forth, but these questions seem to me to be rather beyond the scope of the present lecture, and, besides, our time is too limited to consider them.

An anæsthetist is, of course, bound by certain rules that govern the conduct of all registered practitioners, but as regards his special duties his position is ill-defined and subject to circumstances. This is to a great extent due to the fact that it is only within the last quarter of a century or so that he has been acquiring some independence, and consequently there are no decisions available for exact guidance. Formerly, comparatively few operations were done, and those were usually of a simple nature. The surgeon took entire responsibility, and he supervised the administration of the anæsthetic besides performing the operation, and the anæsthetic was, in fact, often administered by an assistant or by some unqualified person. Even nowadays such conditions may be unavoidable in emergencies, but the responsibilities of the anæsthetist have been so increased that the majority of surgeons prefer to work, when possible, with one to whom they can give a free hand, and, indeed, it is often quite impracticable for them to do otherwise, because their own work requires unlimited attention. Now it is possible that some irreconcilable difference of opinion may arise between the surgeon and the anæsthetist as regards the method to be employed. Dr. Dudley Buxton referred to this in *The Lancet* of January 16th, 1908, and he suggested that under such conditions the anæsthetist should retire unless he had been specially called in by the patient or the practitioner, in which case he is on the same footing as the surgeon. It may also happen that some difference of opinion may arise as to the course to be pursued in some emergency, for instance, the entry of fluid into the air passages, or the completion of an operation when the patient is in a desperate condition. One cannot lay down any general rule about such cases, because the respective professional standing of the anæsthetist and the operator and their previous relations to the patient may differ very much in one case from another.

Now as regards consent—as a general rule, no person can be legally anæsthetised without consent. In the case of a child this should have been obtained from the parent or guardian, and in the case of an insane person, from someone who has authority to give it. Anæsthetisation, without consent, would be as much an assault as the performance of an operation without consent. If there are peculiar risks in taking an anæsthetic, one should give some warning to the patient, but people ought not to be alarmed by discussing remote possibilities. Difficulty may arise when a person is not in a condition to give consent on account of shock of accident or intoxication, and in the case of a child if the parents cannot be immediately communicated with and the operation is urgent—well, in such circumstances the anæsthetist can only do as the surgeon generally does, and be guided by circumstances that may make the performance of an operation under an anæsthetic justifiable, although possibly illegal. It is advisable that consent should be given, if possible, in the presence of a witness, more particularly if the patient is able to talk and understands what is said, but still is not in quite a normal condition. For instance, one under the influence of a narcotic may give consent, apparently in quite a rational way, and may afterwards, when the effect of the narcotic has passed off, have no recollection of having done so.

Until quite lately it was considered that the power of a parent to withhold consent in case of children was absolute. However, not long ago a man was prosecuted by the National Society for the Prevention of Cruelty to Children, and was fined for refusing to allow his child to be operated upon for cleft palate, and that being so, one may perhaps assume that an operation to save life, for instance, in a case of strangulated hernia, may be legally performed, even if the parents object. One must not forget that many young people, such as those of 20 years of age or so, though practically independent of their parents, are still legally infants. There was a case in Canada some few years ago that turned on this point. A patient agreed to an operation not absolutely necessary, but his parents had not consented, and brought an action against those who were concerned. The case was decided against them, but rather on its own merits than for any definite reason. Then consent may have been given in the case of a grown-up person, and the patient may possibly change his mind immediately one starts to give the anæsthetic. Then the anæsthetist must desist. If the anæsthetic has been taken for a few minutes, or even for a few seconds, and one may reasonably suppose that the power of judgment has been lost, then one is justified in going on in spite of protests and strivings. Sometimes a surgeon finds it is impossible to keep within the limits of the operation intended, or he may find that he has to give up that operation and do a different one, perhaps a more serious one. He may, for example, have to do lithotomy instead of litholapaxy. The anæsthetist is probably entitled to assume, unless anything has been said to the contrary, that consent has been obtained to a possible variation, that the surgeon has been given a free hand to do his best, but if he is aware that the consent as regards the operation has been strictly limited, he may possibly get into trouble if he goes on giving an anæsthetic for aiding the surgeon to do something which the patient or the patient's relatives may afterwards disapprove, or which may even result in a fatality.

(*a*) Delivered at the Medical Graduates' College and Polyclinic.

An anæsthetic should never be given except in the presence of a third person. There are, at least, three good reasons for that rule. In the first place, actions have been brought for alleged administration without consent—the patient and the anæsthetist who was also the operator being alone together—and though these actions have failed on the grounds that the anæsthetic could not have been fully given by force, and that there was collateral evidence of consent, it is quite obvious that the anæsthetist-operator may be unable to prove this, and he would, at any rate, be exposed to considerable trouble and expense and have to make up a defence. In the second place, difficulties and dangers may, of course, arise during any administration, even when it is expected to be quite simple. If struggling occurs the anæsthetist or patient may be injured, and in the latter event there may be an action for damages. Then, too, various mishaps, vomiting, asphyxia and so on may make assistance quite essential at a moment when it is impossible to procure it. Supposing there is no third person present, in the event of a fatality, the anæsthetist would be severely blamed, if no more serious consequences happened to him. Thirdly, in the case of a woman, the presence of a third person is especially important, because any anæsthetic may cause an erotic hallucination, either during induction or during recovery, and a charge may be made afterwards with perfect good faith, against him, and, without any such excuse, a charge may be made for the purpose of extortion.

No one may give an anæsthetic for an illegal operation, and it is also likely that one might get into trouble by giving an anæsthetic for a fraudulent or otherwise indefensible operation. Nor may one give an anæsthetic for the purpose of "covering" such persons as unregistered dentists, and bone-setters, even when they disavow any legal qualifications. A practitioner was not long ago struck off the register for administering gas to enable a professed bone-setter to make an examination.

Then as to after-effects and fatalities, charges of malpraxis, civil actions for damages and so forth—in a general sense every registered practitioner is entitled, having attained his qualification, to administer an anæsthetic, and as defence against a charge of malpraxis is only required to show he exercised reasonable care and skill in so doing. But there is no exact definition as to what are reasonable care and skill. A higher standard of skill, although not a higher standard of care, would probably be expected from one who holds a hospital appointment as an anæsthetist. If anyone who may be supposed to possess only the average skill of a practitioner gives an anæsthetic where no unusual difficulty could be expected, or if he gives it even when obviously risky, but for some good reason nobody else can be engaged, he would not be liable for any disaster in a criminal sense, unless it could be shown that he displayed extreme ignorance or carelessness. On the other hand, it is quite possible in the present day that if one who has only the average skill of a practitioner undertakes this task when the benefit of special knowledge is required and could have been obtained—that is when a specialist-anæsthetist could be engaged—he may be penalised in some way in the event of any ill-effects ensuing. One must make an exception to that, because he might be acting under the orders of someone in authority, for instance, a house surgeon directed by his chief, or an assistant directed by his principal. It has been suggested that even when such is not the case, that not only the anæsthetist might find himself in difficulties from a medico-legal point of view, but also the surgeon who engaged him or even permitted him to give the anæsthetic. Therefore any practitioner who is doubtful about his own ability to give anæsthetics ought to study not only the interests of the patient and the interests of himself, but also the interests of the surgeon.

One of the conclusions at which a Commission on Anæsthetics arrived a good many years ago was this—that in many cases an anæsthetisation is of such importance and gravity, that it is absolutely essential it should be conducted by an administrator with large experience. If that conclusion was justified when it was written, it is even more justified at the present time, because for a large proportion of the operations now performed special skill and experience are as necessary in the anæsthetist as in the surgeon. I would include amongst these, operations for removal of tonsils and adenoids, which are now so common, and all operations on internal organs. It need hardly be said that some practitioners are excellent anæsthetists, just as some of our practitioners are excellent operators, but it is not possible for the majority to deal successfully with those cases that require special training. One knows that a faulty administration is not often the direct cause of actual death, but I assure you one hears much too often of cases in which it has caused considerable anxiety and materially delayed the operation and interfered with its success. The apportionment of responsibility between the surgeon and the anæsthetist in the event of disaster has not been recently determined in court. Formerly it was, as I said, customary to consider the operator solely responsible, in addition to his own actions for the actions of those not only directly assisting him, but in any way aiding him to perform the operation. But it is unlikely that if this question were to arise at the present day, this view would still be taken. One may point out that when death occurs during anæsthesia the anæsthetist is invariably summoned if an inquest is held, but the coroner does not call as a rule on the surgeon, unless he has reason to suppose that death was due to some operating accident, rather than to the anæsthetic. He might, however, do so in the circumstances above indicated.

Any disasters consequent on anæsthetisation, apart from death, may be slight or may be serious. For instance, you may have a tooth broken from forcibly opening the mouth; you may have some injury sustained in struggling; you may have bruising of the tongue from dragging and clamping; you may have something very serious, such as loss of an eye from movement of the head (the patient being incompletely anæsthetised) or actual inability of the surgeon to complete the operation, or you may have after effects, such as persistent vomiting, more or less due to some mistake made in the way in which the anæsthetic has been selected and given. The anæsthetist may in such circumstances find himself a defendant in an action for damages, although, supposing death to have occurred, there may have been no prosecution for manslaughter, or any probability that if there had been any prosecution there would have been a conviction. The anæsthetist may also be called as a witness in an action brought against the operator, for instance, where, as has happened in one or two cases, the operator has left a swab in the abdominal cavity, or he may be called as a witness in an action against an insurance company, or against employers under the Workmen's Compensation Act, and so forth.

It has been suggested that if the anæsthetist is very much afraid of this kind of thing happening, he should get the patient to sign an indemnity freeing him from responsibility. But that would be of hardly any value at all from a legal point of view, because it would not afford any protection against the consequences of wrong doing. It would only indicate that a patient had been warned that risks were present, and one need hardly say that a nervous patient would be extremely alarmed by any request of this sort, and altogether it is not a thing that one would recommend.

In giving evidence the anæsthetist should follow the general advice that one gets in books on Forensic Medicine as regards medical witnesses. That is, to put it briefly, he ought to study the subject of inquiry very carefully beforehand. He ought to consider what questions are likely to be put to him, and how his evidence may be regarded by anyone outside the medical profession. He must remember that he may have to deal with a coroner who has had no medical training at all, or with a judge and counsel and jury who certainly had none, and that an answer which would satisfy a board of medical experts will by no means satisfy a tribunal of that description, and he ought to consider whether there are any weak points that may be seized upon to his disadvantage. Then if he goes before the coroner or before a magistrate or a county court judge, he ought to remember that the case may be carried further and copies of the evidence given may be produced before a higher court, and there should be no discrepancies from carelessness or lapse of memory between the evidence given on the second occasion, as compared with the evidence on the first occasion. He should give answers deliberately and distinctly, carefully avoid any approach to levity, irritation or discourtesy, and as far as possible reply in simple language free from technical terms and from vague and exaggerated expressions. As far as one can, he should give plain answers to simple questions, not stray beyond the question asked, and confine himself to facts, or to comments on facts disclosed in evidence if summoned as an expert witness. Objection should be made to any questions that are involved or suggestive, or depend upon some hypothesis, and if a brief answer such as "Yes" or "No" would be misleading, he should ask to be allowed to give an answer which would be more satisfactory. If in doubt he should not evade the question, but say he is in doubt and give his reasons for being in doubt; also avoid expressing any decided opinion where the data are insufficient, and particularly not give an opinion about the cause of death in the absence of a *post mortem* examination, even when the cause of death has apparently been unmistakable.

Then, lastly, we come to the Coroner's Court. Now some coroners always hold an inquest when death occurs during anæsthesia, and some consider they are entitled to exercise discretion. Some coroners are extremely good and impartial, and know, as far as they can in the absence of practical experience, a good deal about the subject. Some, unfortunately, are just the reverse. A coroner's jury is obviously unfitted to decide in what ought to be a scientific investigation. The consequence of all this is that an anæsthetist, who has really been very much to blame may get off scot-free, whereas one who has done his best in difficulties, and who is perfectly competent and careful, may find his reputation considerably damaged. That is perfectly evident from the reports that one reads in the newspapers from time to time of inquests on people who have died under an anæsthetic. Some few years ago, the Coroners' Society drew up a series of questions to be used in inquiries of this sort. Dr. F. J. Smith, in his "Medical Jurisprudence," last edition, has dubbed it with vigorous criticism "The Coroner's Catechism." I give it you because it not only indicates questions that may be asked in the Coroner's Court, but also questions that may be asked at other investigations, such as I have already mentioned.

The first question is: "What anæsthetic or anæsthetics were employed, and what influenced your choice?" Now, in regard to that, I would make this comment—that fatalities and troubles short of fatalities are very often due to a faulty selection of the anæsthetic. Something may be given which is unsuitable, either to the particular patient or the particular operation, or to the position in which the patient is to be placed, or some other condition. For instance, nitrous oxide may be given to an elderly full-blooded person for the opening of a tonsillitic abscess. Chloroform may be given to an anæmic girl for the extraction of a tooth. Fatalities have occurred in such cases.

2. When and where was the anæsthetic administered? State if in an operating theatre, casualty room, out-patient department, or private house.

3. What was the temperature of the operating room? Had the room, previous to the operation, been well-aired?

4. Was the anæsthetic given by artificial light? State what kind. If gas, was the flame exposed?

5. For what purpose was the anæsthetic administered? State the nature of the operation, with name and address of the surgeon operating.

6. How many patients were placed under anæsthesia by you that day, and how much time was occupied in producing complete anæsthesia in each case?

7. Was there any, and, if so, what reason for administering the anæsthetic quickly?

8. How was the anæsthetic administered? If by means of an inhaler, state what kind and make.

9. How was the mixture of air with the vapour of the anæsthetic secured, and in what proportion?

10. What quantity of the anæsthetic was used (*a*) from the beginning of the administration until complete anæsthesia was produced; (*b*) from then until the administration was stopped? Was the anæsthetic supplied by drops or measurement?

That question about quantity is constantly asked. If a small quantity, say, of chloroform has been used, the coroner and jury seem to think it quite satisfactory. If a comparatively large quantity has been used, they seem suspicious, not knowing how the amount used, particularly if given by the drop method—the so-called open method—may be influenced. For instance, in anæsthetising a person whose breathing is shallow, the patient takes a long time to go under, and comparatively a large amount is used, although only a little of that is really absorbed, and a good anæsthetist will use more than a bad anæsthetist, because he will not hurry.

11. How was the deceased prepared for the anæsthesia as regards food, clothing and so forth? Was there mechanical or other obstruction to the respiration?

Proper preparation of a patient for anæsthesia is extremely important, and in emergency operations it is most essential to inquire when the last meal was taken, and of what it consisted. There is one recorded case in which a man had been assaulted, and it was necessary to give him an anæsthetic, in order that his wound might be examined. The anæsthetist made this inquiry, and was told that he had his last meal many hours before. However, the man, during the giving of the anæsthetic, vomited undigested food and was choked and died. The man who had assaulted him was consequently put upon his trial for manslaughter, but when it was stated that the deceased person had deceived the anæsthetist as regards the time of his last meal, he escaped conviction. Now, if the anæsthetist had not put the question, or if the patient had answered him correctly, there would, of course, have been a very different result.

12. What was the condition of the heart, lungs and kidneys of the deceased previous to the administration? Were you satisfied that the patient was in a safe condition to be placed under the anæsthetic? Had the patient previously been anæsthetised?

13. Was the deceased at the time of the administration suffering or recovering from any acute or chronic illness, or from alcoholism?

As to suffering or recovering from any acute or chronic illness, one must, I suppose, take it that refers to some illness additional to the one that necessitated the operation.

14. Was the deceased excited or violent during the first stage?

There is very good reason for asking that question, because violent struggling at the onset may have an effect on the heart that continues after the struggling has ceased, and may result in failure later on. Alcoholic subjects, I need hardly say, are particularly bad subjects, for the reasons that they need much anæsthetic to get them under, they commonly struggle very violently, and their hearts are commonly, at any rate, after middle age, in a degenerated condition, and very apt to get overdilated and give out altogether.

15. Was the pulse and respiration watched during the administration, and if so, by whom? State the conditions observed. What was the state of the pupils and of reflex irritability generally?

16. At what period during the administration of the anæsthetic was the first symptom of impending death noticed? What was it? Did the deceased vomit at any time? If so, when and how often?

17. Did deceased die during the administration of the anæsthetic? If not, how long after it had been discontinued? Was the operation then completed? If so, for how long?

18. What efforts were made to restore animation, and how long were they continued?

19. To what immediate cause do you yourself attribute the sudden death of the deceased?

This gives one a chance to explain about the part which may have been played in the fatality by surgical shock, hæmorrhage, asphyxia from vomiting or blood in the air passages, and so forth. And one might say in this connection that a large proportion of deaths during anæsthesia are not due to simple over-dose, but to some complication of that sort.

20. In how many cases have you given an anæsthetic previously? If any fatal cases, say how many.

It has often been pointed out that statistics concerning fatalities are of little value. A man may have been so unfortunate as to have had two deaths in 500 cases, but one may have been that of an infant in a dying state from internal obstruction, and another may have been that of a brewer's drayman with impeded breathing from cellulitis in the neck. It would be extremely unfair to require him to say simply he had had two deaths in 500 cases. It would give a perfectly erroneous notion of his capacity as an anæsthetist.

Then, as I said just now, the question of consent may also arise, especially when the administration was for any reason risky, and there may be also inquiry as to the quality of the anæsthetic used.

Several of the questions are open to objections, such as suggesting carelessness or incompetency, or entailing explanations which would not be understood by the laity. However, any or all of them may possibly be asked of an anæsthetist, not only in the Coroner's Court, but in any court, and they show that before giving an anæsthetic you ought to be thoroughly acquainted with the subject, and realise that you are undertaking a heavy responsibility, not only as regards the patient—this is obvious—but also as regards yourself. The administration should be conducted with the utmost attention, and notes taken, at least in any unusual case, because you may be called upon at some future time to justify your actions. I need hardly add that membership of the Medical Defence Union or the London Counties Medical Protection Society may in this, as in any kind of practice, be a very present help in time of trouble.

Note.—*A Clinical Lecture by a well-known teacher appears in each number of this Journal. The lecture for next week will be by W. Essex Wynter, M.D., F.R.C.P., Physician, Middlesex Hospital. Subject: "Herpes."*

ORIGINAL PAPERS.

RECENT DISCOVERIES OF FOSSIL MAN. (a)

By J. C. M. GIVEN, M.D. Lond., M.R.C.P.

Recent discoveries of fossil human remains have revived so much interest in the old questions of the antiquity of man, and the mode of his evolution, that it is worth while at the present day renewing our acquaintance with some of the earlier finds, while examining the recent ones, and thus getting some idea of the more modern views that are prevalent on these vexed topics. The subject has two principal aspects: (1) the geological, and (2) the palæontological, or perhaps anatomical.

We must depend on geological science for dating any discoveries that are made, and for putting them in the proper sequence; and we must turn to the palæontologist to classify and describe the remains that are actually found. Unfortunately, complete acquaintance with these two branches of knowledge is not often possessed by one individual, and hence arise many of the difficulties which at the moment beset the subject. Geology has divided the various strata of the earth into different periods, each representing the long ages taken by their deposition, and has thus provided a sort of measuring rod for locating the various fossils found in any of these strata. The relative position of the periods to each other is certain, and also, roughly, the relative length of one period compared to another; but when it comes to speaking of the number of years any period may have lasted, most sound geologists decline to offer an opinion, the data for such calculations being too uncertain. It is true that lately some attempts have been made to express in years the lengths of the most recent periods, and especially of the time that has elapsed since the Glacial epoch. These estimates are probably much nearer the truth than the previous statements have been, but even they are not much better than intelligent guesses. The table here given shows some details of the youngest or more recent periods, with which we are alone concerned—namely, the *Recent*, including the Neolithic age of polished stone implements; the *Pleistocene* or Quaternary; and the *Tertiary*, with its later subdivisions of oligocene, miocene, and pliocene.

The *Glacial epoch*, which is now known to have consisted of at least four distinct periods of maximal glaciation, with mild interglacial pauses, is seen to extend from the end of Tertiary times into the middle or later part of the pleistocene. But it must be remembered that what we call the Pleistocene period is to be looked upon as merely the introduction, and the Tertiary period as only the first chapter, of the very thick volume which contains the complete geological record. The table also indicates the different periods of prehistoric culture, as elaborated by the French and Belgian schools, as shown by the associated flint implements and products of manufacture and art.

(a) Reproduced from the *Liverpool Medico-Chirurgical Journal*, July, 1914.

We will now briefly recall a few of the best-known specimens of fossil man before discussing those recently found in Sussex. The most primitive and probably the earliest find was the so-called *Pithecanthropus erectus*, discovered by Dubois in Java in 1891. The geologists would place it at the end of the Tertiary or beginning of the Pleistocene period. Its anatomical features are very unusual. The cranial capacity is only 855 c.c.—that is not very much above that of a gorilla with 600 c.c., an average modern skull having about 1450 c.c. The skull bones are very thick; the vertex is low and flat. The femur, which was found close by, and presumably belongs to the same individual, would point to a stature of 5 feet 6 inches, and to the erect position. Hence in this individual, at any rate, the erect position was evolved before any great cerebral development occurred.

Geological Periods.	Glacial Periods.	Cultural Periods.	Human Remains.
Recent.		Age of Metals. Neolithic.	
Pleistocene. (Quaternary.)		Magdalenian. Solutrean.	
		Aurignacean.	Brunn skull. Cro-Magnon skeletons, Combe-Capelle skeleton.
	4th Glacial period.		
		Mousterian.	Spy skeletons, Neanderthal skull, Krapina skull Gibraltar skull.
		Acheulean.	Galley Hill skull. Ipswich skeleton.
	3rd Glacial period.	Chellean.	Piltdown skull.
	2nd Glacial period.	Strepyan.	Heidelberg jaw.
Tertiary. Pliocene.	1st Glacial period.		*Pithecanthropus erectus.*
Miocene.			(Primitive human. Primate stock.)
Oligocene.			(Primitive giant. Primate stock.)

Next we will take the inferior maxilla found in the Mauer Sands near Heidelberg in 1907. Its position in the alluvial deposits laid down by the ancient river Neckar makes its age quite certain, namely, in the very beginning of Pleistocene times. This jaw is extraordinarily massive, but the teeth, which are all preserved, are distinctly human in character, though very large in size; in fact, it was only the teeth which prevented its being taken for a simian jaw when found. The absence of the mental prominence or chin is very marked, and the breadth of the ascending ramus is enormous; the insertion thus provided for the masseter muscle shows that the latter must have been of great size and power; the shallowness of the sigmoid notch is noteworthy, and helps to increase the bony surface for muscular attachment. The incisor teeth are remarkably curved on their long axes, with the convexity forwards, and they evidently projected in front of the upper incisors, and did not lie behind them, as they do in modern man. The genial tubercles (or mental spines) on the inner surface of the symphysis, for the attachment of the genio-glossi and genio-hyoid muscles, are replaced by a shallow pit. This is always found in apes, in some very primitive human races, and it is said also to occur in deaf-mutes. Dr. Louis Robinson, in an article in *Knowledge*, Nov., 1913, shows the close relation in which these genial tubercles stand to the power of articulate speech. They are only present in adult man, being absent in young children; they are Nature's method of giving an effective point of action for the genio-glossus muscle, the latter being the most important factor in articulation, by causing the various vertical movements of the surface of the tongue which produce the different consonantal sounds. In apes, lemurs, and the canine races, the tongue lies flat on the inner surface of the jaw, and the genio-glossus muscle arises from a pit in the bone, which is necessary to give it room to act; but as the chin becomes gradually vertical, and the tongue lies within rather than on the jaw, the attachment of the muscle is more forward and deeper, then the pit disappears and is replaced by bony prominences. Thus, though the Heidelberg jaw is certainly human, yet it would seem as if its chief purpose was for mastication rather than for speech. Professor Duckworth, of Cambridge, has pointed out that this jaw would be a very fair fit for the other ancient fossil we have just described, the *Pithecanthropus erectus*.

A very important series of fossil remains should now be noticed; they are classed together under the name of the Neanderthal race, after the first of the group to be discovered in a valley of the same name in Düsseldorf in 1857. When similar bones were found later at Spy, Krapina, le Moustier, and Chapelle-au-Saintes, they were seen to constitute a distinct type of human beings. They are characterised by skulls of large cranial capacity, up to the modern standard, but the bones of the vault are very thick, the areas for attachment of the muscles of mastication and of the neck are greatly increased, and there is an enormous development of the supraciliary ridges, forming a great prominence above the orbits, the so-called supra-orbital torus. This gives the skulls a forbidding, ape-like appearance, so that when first found, the Neanderthal skull was hailed as the long-sought missing link between man and the anthropoid apes. In this skull the external occipital protuberance, marking the upper limit of attachment of the cervical muscles, is 20 mm. higher on the outside than the upper limit of the cerebellum, as shown by the torcular Herophili on the inside of the skull, while in modern man these two points are nearly opposite each other.

The long bones of these skeletons are very massive, with enlarged ends and articular surfaces, which seem to show that the knee-joints were never completely extended, so that the individuals walked with bent knees and a slouching gait.

Professor Keith has made the suggestion that these features recall the pathological condition of Acromegaly and that this peculiar group, who apparently appeared in mid-Pleistocene times and were associated with the Mousterian stage of flint implements, and then died out, may be accounted for by some special phase of glandular activity, just as hypertrophy of the pituitary produces acromegaly. However this may be, it is now recognised that this group was a local degeneration or backward step in the path of human evolution, and died out of itself. This contention is borne out by the fact that the Mousterian flint implements found along with these remains show a more primitive culture than the Acheulean flints which occur in the epoch immediately preceding them.

Allied to these Neanderthalers is the well-known Gibraltar skull found in a limestone cave at that place in 1848; it was never properly described until many years later, when it was brought home and placed in the Hunterian Museum of the Royal College of Surgeons, where it now reposes. Unfortunately, its exact age cannot be fixed, as the proper geological data were not recorded at the time of its discovery, but the mineralised condition of the bone itself and certain other evidence point to a great antiquity, probably early Pleistocene. It shows the great supra-orbital ridge, so characteristic of the Neanderthal type, but it differs from the other members of that group in having a much lower cranial capacity, namely, 1100 c.c., while, as has been mentioned before, the Neanderthalers had brains equal in size to our own. This accounts for the lowness of the cranial vault, which only reaches 88 mm. above the external auditory meatus, while a modern skull measures 117 mm. between these points.

The teeth are interesting; the roots of the molars are very large, and are united together, while the size of the wisdom tooth, judging from the alveolar cavity (for the tooth itself is absent), must have been as large or larger than the second molar. This is a primitive feature. Modern man is rapidly losing his wisdom teeth; they are always smaller than his second molars, while in the anthropoid apes they are equal to or larger than them. This skull is considered to be a predecessor or progenitor of the Neanderthal race, and possibly belonged to the period when that group was branching off from the primitive human stock.

Now this series of human remains which have been discovered at many places on the Continent of Europe are all found at about the same geological horizon, namely, in the middle of the Pleistocene, and in the mild climatic interval before the last cold phase of the Glacial epoch; but contemporaneous with them, and also slightly earlier, are found other human fossils, which do not show the same features, and are in fact not nearly so primitive in character. Such, for example, are the Grimaldi skeletons of Mentone, the Combe-Capelle from the Dordogne district, and the Galley Hill skull found in this country. The latter was discovered near Gravesend in the 100-foot terrace laid down by the River Thames towards the close of the Glacial epoch. In this gravel terrace are found remains of *Elephas antiquus*, the predecessor of the mammoth, of an extinct rhinoceros (*Megarrhinus*) also flint implement which are classified as Chellean in type.

Now the Galley Hill man and those just mentioned show none of the peculiarities which are special to the Neanderthal group, and though they have some special features of their own, they approach very closely to modern man. Again, the discovery in October 1911 at Ipswich by Mr. Reid Moir of a complete skeleton just below the boulder clay, and therefore presumably of pre-Glacial age, though this is disputed by some, points in the same direction. Professor Keith, who has described this skeleton in great detail, and is an ardent advocate for its pre-Glacial age, shows that in all its anatomical features, with the possible exception of some primitive traits in the tibiæ, it is practically modern in type.

Thus it would appear that man existed in more or less his present form at a very early age, towards the beginning of Quaternary times. The probability of Tertiary man has never been admitted until quite recently, but if we are to give time for his evolution up to the advanced stage shown by the Galley Hill and Combe-Capelle remains, we must put his first appearance well back towards the middle of the Tertiary period. The evidence of flint implements seems to support such a view, as the new schools of pre-history in France and Belgium are accumulating instances of the occurrence of the so-called eoliths, which are accepted by many authorities as of human manufacture, in the strata of late and middle Tertiary age, both in this country and on the Continent.

We now come to the interesting and important discovery of fossil man at Piltdown near Lewes in Sussex. This was made by Mr. Dawson in October 1912 in a bed of gravel along with flint implements and some mammalian remains. Dr. Smith Woodward, Keeper of Geology at the South Kensington Museum, who has carefully described the bones, suggests that, as they differ so much from all other known human bones, they should be placed in a new genus of the Homonidæ, and be named, in honour of their finder, "Eoanthropus Dawson" (*Quart. Journ. Geolog. Soc.*, March, 1913).

The flint implements found in the same bed are of two kinds: palæolithic or chipped flints of the Chellean type, such as occur in the terrace of the Thames where the Galley Hill skull was found; and also some "eoliths," such as have been found in pliocene or even earlier strata. The associated mammalian bones belonged to a primitive or pliocene elephant, the stegodon, mastodon, hippopotamus, deer, beaver, and horse; and later the tooth of the extinct *Rhinoceros etruscus* has been dug out of the same bed.

This assemblage of fossils points undoubtedly to the pliocene period, and the condition of the human bones resembles that of the other fossils as far as colour, state of mineralisation, etc.; but because of the fact that they are not "rolled" or water-worn to anything like the same extent as the other bones, Dr. Smith Woodward cautiously prefers not to assign them any greater age than that of the Chellean palæolithic flints, *i.e.*, early Pleistocene, though he admits the possibility that they may be of much greater antiquity. The human bones consist of the greater part of both parietals, almost the whole of one temporal, part of the frontal and occipital, thus forming the greater portion of the brain case. The right half of the lower jaw was also found with the first and second molar teeth *in situ*. In August last the canine tooth belonging to this half of the jaw turned up, and Dr. Smith Woodward informs me that by carefully putting the earth and gravel through fine-meshed sieves, he has found both the nasal bones and some small fragments of what he thinks is the vomer. The bones were all found lying close together. (Mr. Dawson first found one fragment by chance, some time before the others, and this had been already dug up by workmen.) They are all of the same degree of mineralisation, which is extremely complete, probably more so than any other known human bone. They are all of the same dark reddish-brown colour, and ring like a stone when struck; in fact, they are stone now and not bone.

With regard to the special features of the cranial bones, the great thickness of the flat bones should be noted, twice as much as normal; it is due to a great increase of a fine dense diploë, the external and internal tables being quite thin. The temporal bone is normal; the frontal bone shows the left external angular process, with the orbital plate and the articulating surface for the malar bone. These are all modern in form, and show that there was none of the huge supra-orbital ridge of the Neanderthal skulls. The occipital bone shows the upper half of the foramen magnum, with the occipital protuberance outside and the torcula herophili inside, the former being slightly below the level of the latter, as in modern man, and not above it, as in the Neanderthalers. The asymmetry of the cerebellar fossæ is interesting, the left being depressed below the level of the right, showing that the left cerebral hemisphere was larger than the right, and depressed the corresponding cerebellar lobe.

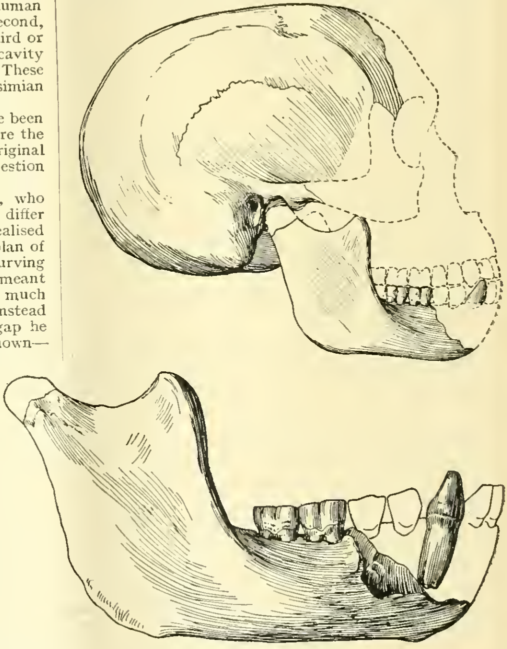
Thus the cranial bones are very similar to those of modern man; but when we come to the mandible, things are very different. Only the right half is preserved, and this lacks the condyle and the anterior part of the alveolar portion in front of the first molar tooth, while the lower border is preserved up to, or almost up to, the symphysis. The ascending ramus is broad and the sigmoid notch is shallow, giving a large area for the attachment of a presumably powerful masseter muscle. On the inner side there is no trace of the ridge, present in nearly every human jaw, for the attachment of the mylohyoid muscle. The position of the groove for the mylohyoid vessels and nerve is abnormal, for instead of leading downwards and forwards from the dental foramen, it runs below and behind it. The space for the insertion of the temporal muscle is extensive; the anterior margin of the ascending ramus is here much thicker than usual, and a well-marked ridge runs upwards and backwards to the condyloid process, evidently for the purpose of strengthening the bone where the powerful muscles of mastication are inserted. All these features are normal to the jaw of a chimpanzee and are absent in man. But the most simian character of all is the anterior portion of the jaw. The lower border, as it curves round towards the symphysis, forms a horizontal shelf or flange, ending in front in a strongly retreating chin. This flange-like process is utterly unlike anything met with in a human mandible, even when there is a retreating chin, while it is quite typical of the anthropoid apes. If the opposite half of the inferior maxilla of a young chimpanzee be joined up with this one, a perfectly symmetrical jaw results.

The first and second molar teeth are present. They are ground down quite smooth and flat, showing that some lateral grinding movements of the food were employed. They are large in size, but quite human in character. The first is smaller than the second, and the second is hardly any larger than the third or wisdom tooth, judging from the alveolar cavity of the latter, as the tooth itself is absent. These relative proportions are suggestive of the simian dentition.

Such being the character of bones which have been found, the problem to be solved is, how to restore the missing parts, and so to reconstruct the original individual as he once existed; and over this question a sharp controversy has raged.

Dr. Smith Woodward and Professor Keith, who have each attempted to solve this problem, differ considerably in their results. Woodward realised that the chin must be a retreating one on the plan of a chimpanzee, in order to account for the incurving flange on the lower border of the jaw. This meant that the alveolar process would have to be much longer than in modern man, about 60 mm. instead of about 40 mm. In order to fill up this gap he first modelled on the largest set of human teeth known—namely, those from the Heidelberg jaw—but even these were not big enough for the purpose; he then had to postulate the existence of a large projecting canine overlapping its fellow after the pithecoid pattern, which would, in fact, be in harmony with the other existing features. Professor Keith, however, protested at this reconstruction and denied the possibility of such large teeth, and especially of the interlocking projecting canine. He solves the problem by putting in normal-sized teeth, and shortens the alveolar process by recurving the anterior surface of the symphysis upwards and backwards. This, his opponent says, is neither human nor simian, and has no justification. However, after the publication of these models, on August 20th, 1913, the missing canine was found in the same gravel bed as the rest of the bones had come from. The tooth is a right lower canine of much the same colour and degree of mineralisation as the others, and though not quite so large as the one postulated by Smith Woodward, is similar in character, and shows by the wearing away of its posterior and inner surface that it interlocked with the upper one in the true simian fashion; it thus seems to bear out the latter's reconstruction of the missing parts of the jaw.

Next, with regard to the cranium. Except for the thickness of the bones, it shows no very primitive characters, so that the reconstruction is on modern lines. Woodward and Keith again differ as to the actual cranial capacity, the former giving it 1100 c.c. to 1200 c.c., while Keith demands 1500 c.c., that is, quite equal to the brain of modern man. The position of the superior longitudinal sinus is the disputed point between them, Woodward affirming that a depression which is present on the inner surface of the anterior superior portion of the fronto-parietal fragment represents the position of the sinus, while Keith denies this and places the sinus further to the right side, which of course makes the skull much wider and increases the cranial capacity enormously. With regard to the posterior part of the sinus, Dr. Smith Woodward admits he somewhat misinterpreted its position in his first construction, and now agrees with Professor Keith on that point, which increases his original estimate of 1070 c.c. to about 1200 c.c., which is just within the limits found in the most primitive aboriginal races. The accompanying plate, which I am enabled to reproduce from the *Geological Magazine* of October, 1913, by the kind permission of Dr. Smith Woodward, gives his latest reconstruction, with the newly found canine tooth in position, the missing parts of the bones being shown unshaded.



Eoanthropus Dawsoni.

From *Geological Magazine*, October, 1913. By the kind permission of Dr. A. Smith Woodward.

In a further note on the Piltdown skull which was read at the London Geological Society on December 17th, 1913, Professor Elliot Smith pointed out that he had identified the anterior extremity of the sagittal suture, which had hitherto escaped notice, and this enabled him to determine beyond all question the true median plane, which cuts the parietal fragment precisely along the line determined by Woodward on other grounds, and shows that the posterior part of the suture is quite obliterated, which not uncommonly occurs in modern man from about 30 to 40 years of age. But though the shape of the cranium does not present any very definite simian character, when a cast of the interior is examined the case is different. Professor Elliot Smith, who is probably our greatest authority on the anatomy of the brain, in his description of this cast, after emphasising the diminution and flattening of the parietal and frontal region and the peculiar shape of the temporal lobe, together with the wide bay between the latter and the cerebellum, says: "We must regard this as being the most primitive and simian brain so far recorded, one, moreover, as might reasonably have been expected to be associated in one and the same individual with the mandible which so definitely indicates the zoological rank of its original possessor" (*Quart. Jour. Geolog. Soc.*, March, 1913).

What conclusions, if any, can we now come to, on the old questions as to the antiquity of man, and the nature of the stock from which he has evolved? We have definite evidence that he existed at the very beginning of the Pleistocene period and in the latter part of the Glacial epoch, and that at that time he was not so very different from the races now present on earth. If, then, there existed in late Tertiary times, we will not say man, in quite the modern sense, but a flint-chipping animal, endowed with a brain nearly as voluminous as our own, walking in the erect position, and masticating his food much as our aboriginal races do now, then we must put back the time when he branched off from the primitive primate stock a good deal further, possibly to the middle of the Tertiary age.

In the pedigree Keith published in his Hunterian lecture in April, 1912, he makes the human stock separate from that of the giant primates in oligocene times, from which time the anthropoid apes continued in a separate line of evolution.

It must, however, be remembered that in our desire to give time for man's evolution up to what we find him at the beginning of the Pleistocene era, we must not postulate too early a period for the first signs of his appearance, because it is only in the early Tertiaries that placental mammals first occur, and these differ very much from any forms now known. Further, it is now recognised that the evolution of any group of animals does not necessarily progress in an even, uninterrupted sequence, but more or less in stages, some slow or nearly stationary, others rapid, in proportion to the necessities of the environmental conditions.

According to the ideas which are usually accepted, all the human races have diverged from one common stock; but others have proposed another method by which man has evolved at two or more places from separate anthropoid roots. Thus Professor Klaatsch has suggested a diphyletic route of development, in which he postulates a stock of Propithecanthropi, or common progenitors of apes and men, from which on the one side an Asiatic group separated off, producing *Pithecanthropus erectus*, the Asiatic anthropoid apes, as represented by the orang-outan, and finally modern Europeans, who are descended from the Aurignacean races found in a fossil state all over Europe, and presumably our Sussex man—the *Eoanthropus* would be a step in this ladder. Then, on the other hand, an African phylum started, from which the Negrittos branched off, also the African anthropoid apes, the gorilla and chimpanzee, then the Negro races, and finally the Neanderthalers, whose progenitors had meanwhile crossed into Europe, where they came into contact with the Aurignaceans and died out. Some have thought that the giant-like skeletons found at Cro-Magnon, with their great stature of over 6 feet, and their huge brains of 1700 c.c., represent a cross between the Neanderthalers and the Aurignaceans.

Whatever value these ideas may have, they yet require a great deal of evidence, either to prove or disprove them, and such evidence is slowly but steadily accumulating.

Another avenue of knowledge which throws some light on this subject is that of comparative embryology. It has been said that phylogeny is the epitome of ontogeny, for the growing embryo unfolds and shows the steps by which its ancestors have climbed the ladder of evolution. The skull of the young gorilla shows a more marked resemblance to the adult human skull than it does to an adult skull of its own kind. The enormous development of the supra-orbital ridges, with the retraction of the frontal region, only develop in adult life to give sufficient strength for the powerful muscles of the jaw and neck, which are special to the full-grown ape. This shows that man and the gorilla are descended from a common stock in which these special ape-like characters were not present. It also shows that the full-grown adult skulls of the mid-Tertiary apes must have exhibited the smooth, steep foreheads which their immature descendants now exhibit.

Professor Keith, in a suggestive article on the Piltdown skull in *Bedrock*, January, 1914, points out that just as in Neanderthal man we have a type with a big brain, a human form of chin, but with a simian form of overhanging brows and retreating forehead, so in Piltdown man we have a type with a big brain, a human form of brow and forehead, but with the simian form of chin and teeth. In each of these the simian feature has persisted. While modern man represents a stock which has eliminated or never possessed them both, his ancestors may have been contemporaneous with both the other types, and according to Keith may be represented by the Galley Hill and Ipswich skeletons, which many authorities are desirous of proving to be recent burials, and thus getting rid of the difficult problem of their modern form.

EXOPHTHALMIC GOITRE: ITS PATHOGENY AND TREATMENT. (a)

By F. Graham Crookshank, M.D.Lond., M.R.C.P.

Mr. President and Gentlemen,—In reading to-night, at the request of your Council, some notes on the subject of exophthalmic goitre, I do not propose to describe in any detail the signs, symptoms, and course of so familiar a malady, but rather to bring to your notice some points in its pathogeny, and some considerations affecting its treatment.

We have for long been accustomed to speak of persons whose physical state is marked by enlargement of the thyroid, by protrusion of the eyeballs, by rapid and sensible action of the heart, and by tremors of the extremities, as suffering from exophthalmic goitre. This condition of disorder was first described by Parry, of Bath; although, since the later writings of Graves and of von Basedow have, both at home and abroad, been accorded the greater recognition, it is with their names rather than with his that the affection is titularly associated.

But, under whatever appellation it has gone, its pathogeny has ever been the playground of controversialists; nor can it be said that even now either its nomenclature or its pathology has been definitely settled.

Certainly, ever since first, in the early nineties, attention became directed towards the striking fact that many of the symptoms thereof stand in striking antipathy to those of a person whose thyroid gland has been removed by art or rendered useless by disease, the notion has widely prevailed that it is primarily due to an affection of that organ.

And moreover, since so many of the symptoms are such as may be produced by over-dosage with thyroid substance, and since also actual examination of the gland pretty constantly reveals such hyperplasia as is thought to indicate increased functional activity, it has come to be accepted by most, if not by all, that the nature of the trouble is one of functional excess, associated with increased capacity for secretion. The further suggestion that this excess, or increase, is primary, idiopathic, or essential, has particularly commended itself to those thoroughly British pathologists who love to speak of disease as a morbid entity: something precipitated suddenly and completely: like a baby in a gooseberry-bush, "out of the everywhere into here."

Belief in the primarily thyroidal nature of ex-

(a) Paper read before the West London Medico-Chirurgical Society, May 1st, 1914.

-ophthalmic goitre has, moreover, this recommendation to the otiose, that it shelves inquiry as to why or how the thyroid should suddenly depart from the primrose path of physiological righteousness; and disposes summarily of inconvenient clinicians who have thought to establish causal relations, not easily explained, between the disease and various antecedent conditions and circumstances.

But no state, either physical or metaphysical, is ever primary or idiopathic, unless, indeed, we persuade ourselves that, by the use of these words, we are merely admitting and not seeking to conceal our ignorance of the necessary chains of causation. It is obvious that, were exophthalmic goitre really nothing but the clinical expression of an idiopathic hyperplasia of particular nature, there would clearly be but one rational method of treatment: to trim the gland to proper proportions. But, since there is reason to believe that the activity and overgrowth are either the result of wanton provocation by some vicious agency, or of the nature of a purposive, albeit indiscreet response to some urgent call for the fulfilment of duty—carried too far, as so often are well-intentioned efforts—it is plainly our duty to seek out and remove the incitement, in the hope that restoration to a state of quiet efficiency will ensue. Clearly, too, the actual removal of glandular tissue is not rational unless the tendency to hyperplasia and functional excess has acquired such impetus that its progress cannot be stayed or its effects otherwise combated.

We must not, then, without full conviction, assent to investigations that are arrested at the thyroid gland itself; or to the claim that thyroidectomy affords the only rational and effective plan of treatment, and should therefore be resorted to at the earliest opportunity.

It is sometimes suggested that belief in an essentially thyroidal pathogeny, and a settled conviction in favour of surgical intervention, are justified by a study of those cases which, on the continent, are spoken of as instances of primary Basedow's disease. But, if we press for a definition of these cases, we are told, in approved fashion, that they are those due to primary hyperplasia, and for which surgical intervention is to be recommended.

Even so are archdeacons said to be high ecclesiastical personages who perform archidiaconal functions.

Moreover, we cannot refuse to include within the ambit of our purview those many cases of which the signs and symptoms, if referred to the classical standards of the text-books, are found to be anomalous, or incomplete, as well as sometimes transient.

It does not advance our knowledge, or clarify our thought, to speak contemptuously of such as *formes frustes*—unworthy instances of what disease should be. Rather should they be investigated on their merits, as likely to afford us hints on the pathogeny and treatment of the more serious and progressive cases to which alone some would attach the label of true "exophthalmic goitre."

Indeed, it cannot be said that, after all, everyone is prepared to admit the preponderating excess of the thyroid gland in even these latter cases. For some believe that certain of the symptoms, if not sometimes all the symptoms, may be of nervous origin; while others, admitting the great part played by the thyroid, see evidences of depraved rather than of excessive function—of dysthyreosis, that is, rather than of hyperthyreosis—whilst others, again, think that the thyroid is only one of the glandular organs principally at fault.

It therefore becomes necessary to discuss, albeit with the scantiest justice, what we think we know concerning the functions of the thyroid gland, before attempting to allot its responsibility, or to reconcile conflicting views in respect of the pathogeny of the various groups of cases that come before us.

We speak of the thyroid gland as endocrinic: yet of the actual nature of its secretion little is really known. It is generally believed, however, that a substance of peculiar albuminoid construction is elaborated; that this is sometimes stored as colloid, but normally, after activation by the iodine brought to it by the blood, passes into the general circulation in a form spoken of as iodothyrin. It is to this iodothyrin that the various pharmaceutical preparations of the gland owe their practical efficacy.

But whether or no this iodothyrin represents the only secretion of the gland is not yet settled; for while some believe that there are at least two internal secretions, thus resolving many puzzling difficulties, others are convinced that there is but one secretion, acting differently on different structures, or perhaps under different circumstances.

However, the functions of the thyroid gland are usually spoken of as concerned with certain nervous mechanisms, with the work of other ductless glands, with processes of metabolism, both destructive and constructive, and with the organisation of defence against parasites and poisons.

It may be said that thyroid substance, by virtue of the iodothyrin it contains, exerts a stimulating influence on all parts of the nervous system, but particularly on that part spoken of as vegetative, and, to use the terms of the Viennese, upon both its autonomic and sympathetic components; although upon the latter preponderatingly.

That there is interplay with other endocrinic glands cannot for one moment be doubted, and so far as our present knowledge goes, the thyroid, the chromaffin system and the infundibulum are ranged together in mutual support, and in opposition to the pancreas and parathyroids: though certainly the good fame of the latter structures has been somewhat blown upon of late.

But there is also close association with the activities of the sexual organs, of women, at any rate, and there are some indications of antagonism at some periods of life at least in respect of the thymus.

It should not be forgotten, too, that if the pineal gland seems to restrain the ripening of the male gonads, it cannot be denied that without the kindly influence of the thyroid they ripen even more tardily.

The metabolic functions of the thyroid are indeed obscure. On the one hand the task of the healthy organ seems mainly destructive, quickening the disintegration of proteid matter and hindering the accumulation of fat. On the other, its business seems essentially constructive; for skeletal growth is stimulated, calcium is rapidly assimilated, even if afterwards hurried away, and, as Biedl insists, the destructive effect on carbohydrates of the internal secretion of the pancreas is restrained.

But we do not know whether these tasks in respect of other ductless glands and metabolism are performed directly or through nervous agencies. If directly, surely there must be more than one hormonic substance; if indirectly and through nerve, we may assume the notion of a single polyvalent hormone, capable of eliciting opposed effects according to the particular nervous apparatus that in different circumstances is selected.

That the thyroid gland opposes or destroys not only some of the waste of normal metabolism, but certain abnormal endogenous poisons, as well as micro-organisms and their toxins, is generally believed; but it is still debated, with some degree of acerbity, between the followers of Blum and those who disagree with him, whether this function is discharged in the blood by the products of secretion or in the tissues of the gland itself.

On the whole it is perhaps most likely that the purely defensive and destructive functions of the thyroid appertain to the substance of the organ and not to the internal secretion; so that we may look upon the gland as, incidentally, a kind of trap or catch-pit in which obnoxious material is destroyed and its elements converted to good purposes. Even so are products of waste and of disintegration converted by the cells of the liver into what Glisson called "Bile: that variously beneficial balsam of the body."

It is on the whole now generally agreed that, though sometimes the case may be otherwise, as a rule the symptoms of Graves's disease are produced by the action on various tissues and mechanisms of a substance or substances, elaborated by the thyroid, and differing from those normally produced, mainly in terms of quantity.

But the question must be put: Is the thyroid in Graves's disease, when this is the case, always or ever the first organ in the body to display such aberration of function as is really a part and not merely a cause of the disease?

We must certainly agree that in certain cases of syringomyelia, and so forth, even though rarely, signs of Graves's disease—principally vasomotor and ocular—may arise as a result of central disturbance of the nervous system. But then such cases are not recognised as examples of the disease we are discussing.

On the other hand, exophthalmos, vasomotor disturbance, and other indicia do occur in cases of direct mechanical interference with the cervical sympathetic by tumours, without primary derangement of the thyroidal functions. And, more strange still, such results may follow the pressure on the cervical sympathetic of a goitrous enlargement of the thyroid itself.

The observation of such cases does, indeed, make it hard to deny that a primary derangement of the sympathetic, set up, as some maintain may be the case, by shock, by fright, or by long-continued emotional stress, will sometimes give us the clinical picture of true exophthalmic goitre. For the work of Victor Cyon and others has made it clear that stimulation of the sympathetic may bring about increased vascularity, active congestion, and, indeed, even secretory hyperplasia of the thyroid itself.

It is at least likely that some of Kocher's cases of "vascular Basedow's disease" are really of this nature; and we may agree to find in sympathetic derangement, sometimes, at all events, if not the ultimate causative factor in the production of the disease, at any rate an occurrence that, in the pathogenic sequence, is antecedent rather than consequent, or even concomitant to the thyroidal disorder and hyperplasia.

In another group of cases—barbarously spoken of as that of the "Basedowifying goitres"—the presence of what McCarty would call a retained thyroid unit of fœtal type appears to induce overactivity and hyperplasia of so much of the thyroid as is supposedly normal in character; with the production of a Basedowian syndrome.

It is easy to suppose that, in these cases, the secretory hyperplasia stands for an attempt at adjustment, but some think it is rather the result of irritation. Still, sometimes, the healthy part of the thyroid does appear to vicariously assume the duties abnegated by other portions; and there are the parallel instances in which *formes frustes* arise when the ovaries are in default, at puberty or the menopause; in some cases of pituitary deficiency; and perhaps in some cases of hypoadrenalism.

Indeed, so often do symptoms of Graves's disease arise when there is disturbance of the pluriglandular balance, that we have fair justification for defining another class of case in which there is prethyroidal disturbance of function, but this time endocrinic rather than nervous; and sometimes some of the symptoms are due to such disturbance.

But, besides these instances of prethyroidal derangement of nervous and endocrinic structures, we have to reckon, in the pathogeny of exophthalmic goitre, with metabolic perversions, or irregularities, and with certain infections and intoxications of extrinsic origin; not so much as integral parts, but as provoking agents of the disease. The clinical relationship, on which Mr. Farrant has insisted, between cirrhosis of the liver and exophthalmic goitre, exemplifies the first statement; as does also the part played, according to Chalmers Watson, by certain foods in altering the condition of the thyroid; and some obscure, but nevertheless fairly definite, relation between irregularities in calcium metabolism and the disease. Nor is Sir Arbuthnot Lane without grounds for asserting that chronic intestinal stasis is one of the important antecedents; and there are other possibilities. But, in quite a large number of cases, Graves's disease appears to follow certain forms of infection and exogenous intoxication, local or general, grave or minimal, acute or chronic. Amongst these must be noted the specific fevers, some forms of tuberculosis—much insisted on by the French—and some quasi- as well as genuinely rheumatic affections. It is interesting to note that Parry's first case was that of a woman who, shortly before the onset of her disorder, had suffered from what we should now recognise as acute rheumatoid arthritis; and equally so to remember that it was Kent Spender, another physician of Bath, who first drew attention to the tachycardia and pigmentation so frequently seen amongst invalids at that famous resort.

Yet Spender did not recognise that he was but observing the frequent occurrence of *formes frustes* of Graves's disease, about the time of the menopause, in women who are the subjects of chronic infective arthritis, due to pyorrhœa, to pelvic disorder, or what not. All these facts have received added interest from the work of Farrant, who has shown that certain infections do, under certain circumstances, indeed set up hyperplasia of precisely the nature found in exophthalmic goitre.

So far, then, as the ground has been traversed, we have found that, if the normal thyroid exercises function in respect of nervous mechanisms, the endocrinic balance, metabolism and defence, and if also the signs and symptoms of the disease may be due to aberration or excess in respect of the first three of these: so have we grounds for believing that nervous derangement, disturbance of endocrinic balance, metabolic perversity and infection or exogenous intoxication may each and all be clinical antecedents of the disease. To say, then, that the hyperplasia and functional perversion of the thyroid in Graves's disease is often due to definite call on the energies of the organ in respect of one or more of its accustomed activities, or at least to provocation through one of the accustomed channels, seems almost unnecessary.

But is hyperthyroidism always thus produced? And why does what should be an orderly adjustment so often pass into a progressive disorder?

The first question can hardly be definitely answered save by an appeal to the *à priori* improbability of all allegations of primary or idiopathic disease and the investigation of individual cases.

The second question is less difficult of resolution. Certain experimental findings are obviously relevant; the first that, as Halsted has shown, an excess of iodothyrin in the blood leads to thyroidal hyperplasia; the second, that such excess stimulates the cervical sympathetic; and the third, already mentioned, that stimulation of the cervical sympathetic in its turn leads to increased vascularity and secretory activity of the thyroid.

It is, then, pretty obvious that in many cases of progressive nature we may have to deal with the establishment of a vicious circle: initiated in one of the ways that have been stated; continued by the excess of iodothyrin poured out, and completed by the action, on the thyroid itself, of the nervous and endocrinic structures thereafter involved.

But why are only some cases progressive, or "typical" as is said?

We may well believe that sometimes provocation ceases, that at others there is a favourable re-adjustment of the endocrinic balance, that the circumstances of the patient's life may be ameliorated, and that, though to a surgeon this may appear an extreme hypothesis, even the physician's remedies may sometimes prove of some service.

But when, on the other hand, the disease progresses in spite of every care and favouring circumstance, what are the factors that favour the closure of the vicious circle?

Two lines of thought opened up by recent work may perhaps help us in this respect.

It will be remembered that Eppinger and his coadjutors have shown good grounds for believing that while in health the due balance of function, in respect of the mechanisms controlled by the vegetative nervous system, is procured by orderly opposition between its autonomous and sympathetic components, yet, in states of ill-health, there may prevail either what is called vagotonism, or sympatheticotonus.

Moreover, when vagotonus, or when sympatheticotonus obtains, there is increased susceptibility to the action of vagotonic, or of sympatheticotonic drugs.

Thyroid substance contains sympatheticotonic ingredients, and, when sympatheticotonism is pronounced the effect of its administration is exalted.

But there is also reason to believe that these opposed types of nervous balance represent, not merely states set up in disease, but kinds of constitution or of diathesis.

At any rate it is obvious that if experiment is to be trusted a state of hyperthyroidism is more easily to be induced, and will sooner become vicious and progressive, in one who is markedly sympatheticotonic than in one who is not. (As a matter of fact, the case is perhaps less simple, for Eppinger believes that some of the signs of Graves's disease are due to autonomic irritation. But the point remains that "hyperthyroidism" is more readily produced and continued in those who are the subject of a certain type of nervous balance than in others.)

The second line of thought to which I have referred leads from the little appreciated fact that in most, if not all, cases of exophthalmic goitre submitted to examination the thymus is found to be persistent or enlarged. It is probable, certainly, that there is normally some physiological antagonism between the thymus and the thyroid, at any rate, at certain times of life; and that at other times and in other respects they may be complementary. It is, therefore, difficult to fully elucidate the connection between a persistent thymus and Graves's disease; but of the fact and its importance there is no question. It is true that in it some see the functional resurrection of a defunct organ to balance the vagaries of another. But others, since so many persons dying of exophthalmic goitre present signs of *status thymico-lymphaticus*, think that exophthalmic goitre is more prone to arise, given adequate occasion, in persons who are the subjects of persistent thymus, than in those who are not; perhaps because the vicious circle may close with greater readiness when there is a certain type of endocrinic balance of developmental origin.

Indeed, the subjects of exophthalmic goitre are often those who display unusual physiological and morphological features, and some of the peculiarities sometimes noted in the skin and appendages as signs of the disease are really indications of underlying imperfections in orthogenesis; and it is possible that there is a special correlation between types of nervous and endocrinic balance.

In brief summary of what has been said, let me suggest that the thyroidal functions are complex, and the secretion polyvalent; that the hyperthyroidism of Graves's disease may be provoked by agencies as various as are the functions of the organ; and that progression in a vicious circle happens most readily to those who by constitution, or by acquisition, possess a particular type of nervous or of endocrinic balance.

If anyone is still determined to maintain the primary or essential thyroidal origin of the disease, he should at least be prepared to say in what sense he uses language.

I believe that the secret of those cases that cannot fairly be ascribed to the operation of everyday factors, will ultimately be found hidden in those imperfect processes of development that are responsible for so much that is misunderstood in the pathogeny of disease.

How far do these considerations assist us in developing any rational basis for the treatment of the affection?

It is, in the first place, surely obvious that the arbitrary division of treatment we find consecrated in the text-books, into medical and surgical categories, is both irrational and unsatisfactory, since the necessity for close co-operation, from the very first, between surgeon and physician is indeed imperative.

It is true that some surgeons, knowing the definitive and often successful results that attend their intervention, seem sometimes inclined to suggest that there is no medical treatment: and I admit that they are not without justification in ridiculing the jejune and often fatuous recommendations that are sometimes made in medical writings.

But, though the art of medicine may be, as compared with that of surgery—God bless us, a thing o' naught, I submit that the conventional prescription of a diet at once bland and nutritious, of agreeable society, and a change to the seaside, do not exhaust the resources of the modern physician. As Musser wrote, in a valuable paper, published posthumously in the *American Journal of the Medical Sciences* for June, 1912, the surgeon is apt to do too much and the physician too little in the treatment of exophthalmic goitre. Experience shows us that unless a vicious circle has been established, good results follow the discovery and removal of continuing causes for excessive activity of the gland, and reason tells us that whether or no any such continuing cause—nervous, metabolic, endocrinic, or infective—can be found, we must seek to oppose the ill-effects in the system of an excess of iodothyrin, and at the same time to check its further secretion.

Here is work enough for the physician, although often indeed these indications cannot be fulfilled without surgical aid. Two special cases may be mentioned: the first when a simple goitre sets up irritation of the sympathetic; the second when a goitrous nucleus stimulates the rest of the organ.

Other opportunities for surgical assistance are not few; colonic stasis may be the peccant participant, and, in the view of some recent writers, the removal of the thymus should be early planned. But, speaking generally, the modification of nervous balances, of metabolic and of endocrinic irregularities fall to the lot of the physician, who cannot be denied some share, too, in the treatment by vaccines or otherwise of infections and intoxications.

It has long been attempted to oppose the effects, or some of the effects, of thyroid secretion in the blood by giving digitalis, a drug which in this connection has little save custom and prejudice to commend it. The giving of belladonna is hardly rational, and such good as it may do perhaps results from its inhibition of secretion. But in physostigma we have a drug that in my experience controls tachycardia better than any other, and that appears generally to benefit the patient. Arsenic, too, is in some way or other of benefit likewise, and so is iodide of potassium. It is true that the administration of iodine has been adversely canvassed, but Kocher gives the potassium salt, and we may have some respect for his experience. Sir John Barr lauds the calcium salts with that robustness that characterises all his speech, and perhaps they are not without their uses, and helpful in some degree.

But sodium phosphate is certainly of distinct, even if of inexplicable benefit, and both salicylates and urotropin often prove of service for obvious reasons.

The various sera, rodagen, and the like, are generally unsatisfactory, though the serum of Möbius is said to sometimes give good results.

So far as glandular therapy is concerned, the administration of thyroid substance, on the plea of giving a tired organ a rest, is not to be commended; but mixed cases or cases in which myxœdema is imminent may perhaps be in measure advantaged.

Parathyroid substance is far less useful than once was hoped would be the case, and ovarian substance is unreliable. Occasionally, as at the menopause, I have known it help.

There are not wanting, too, symptomatic indications in certain cases for the use of pituitary and adrenal substance—perhaps the latter more frequently. But by far the most interesting clinical problem is that which attends the remarkable results of the administration of thymus substance, especially in slighter cases of the nervous type. That this substance sometimes brings about amelioration was first made known ten or twelve years ago, I think, by Mr. Owen, who found that a certain patient to whom by a happy accident thymus instead of thyroid had been given promptly recovered. Reports are constantly occurring in various Continental papers of its value, but it seems to be little used in England. Personally I have given it in almost every case that I have seen during the last three years and am convinced of its utility.

At the first blush it may seem inconsistent with what has been already said concerning the *rôle* of the thymus in exophthalmic goitre, that the dried gland should be advised as a remedy. But the thymus is a queer organ; it has different functions and perhaps different functional epochs; we do not know what may be its functional state in Graves's disease, and after all we give, not the thymus of an afflicted patient, but that of a young sheep. Anyhow, the plain fact remains that twenty, thirty, or more grains a day will sometimes abolish exophthalmos and relieve tachycardia and other symptoms.

To arrest hyperplasia we may choose various agencies. Personally I have found the inunction of the ointment of red iodide of mercury—a method I learnt in India twenty years ago, and that Dr. George Murray constantly employs—of undeniable advantage. But it is sometimes painful if carelessly used.

In India the neck of the patient is exposed to the direct rays of the sun; and though this is hardly practicable in England, I have often wondered if any modification of the Finsen light could be of service. The good results sometimes obtained with the X-rays give us hope that the resources of physicotherapy are not yet exhausted. But if all such plans fail: should time as an ally have proved faithless, or should opportunity have been squandered: the cutting of the vicious circle by the surgeon's knife must not be delayed. Generally speaking, the removal of so much of the thyroid as may be judged redundant is the operation of choice. But Jonnesco still prefers to operate in certain cases upon the cervical sympathetic; and thymectomy, either with or without thyroidectomy, is now being advocated. On the other hand, there are those who see in a persistent thymus a contra-indication to thyroidectomy.

I will not discuss these points now and in the presence of operators, but will content myself with insisting on the real difficulty in choosing the moment as well as the nature of the operation. The physician must not regard operation as a *dernier ressort*, nor should the surgeon deem it the only rational method of dealing with the disease.

If there be few cases that do not call, at some time or another, for surgical counsel or action, there are also few remitted to the surgeon that do not stand in need of medical treatment before and after operation.

If, as I said at the beginning, the pathology of the disease has long been a battleground for the scientific inquirer, the treatment of it should be, for the physician and the surgeon, a field of alliance, even if not worthy of the name of the "Field of the Cloth of Gold"!

References.

Good bibliographies are given in Allbutt and Rolleston's "System of Medcine" (vol. iv, pt. 1), in Biedl's "Internal Secretions," in Hirschfelder's "Disease of the Heart and Aorta," and in articles in the *Interstate Medical Journal* for 1912 and 1913.

A discussion is reported in the *Proceedings of the Royal Society of Medicine* (Surgical Section) for March and April, 1912, and a paper by Lenormant, in *La Presse Médicale* for February 14, 1914, should be read, as well as others by Halsted in the *New York Medical Journal* (1914, i, p. 638); and Barker, in the *Monthly Cyclopædia and Medical Bulletin* for March, 1914.

Dr. W. B. Willans, of Much Hadham, was the recipient the other day of a handsome testimonial from his many friends and patients in the district upon the occasion of his removal therefrom to Bedford.

OPERATING THEATRES.

ST. THOMAS'S HOSPITAL.

A Case of Arthrectomy of Ankle.—Mr. Edwin M. Corner said that the patient was a young man with tuberculous disease of the ankle-joint. The radiographer reported that there was extensive disease in the astragalus. Clinically, it could be ascertained that in addition there was disease of the sheaths of the tendons passing over the joint. The wrist-joints and the ankle-joints, Mr. Corner pointed out, were peculiar in that disease of them affected the tendon-sheaths over them. The nature of the disease affecting the joints did not seem to matter. If it was gonorrhœal or tuberculous the result was the same. Perhaps this was due to some communication between the joint and the tendon-sheaths. He further pointed out that tuberculous disease of the ankle-joint in adults was a serious condition, only too frequently resulting in amputation of the foot. In consequence of this serious prognosis, it was intended in this patient to do a very thorough arthrectomy in the hope of staving off the need for an amputation. To do this he had devised a method of exposure of the ankle-joint which allowed the surgeon to do his work fully, as was about to be demonstrated on this patient.

A curved skin incision was then made with its concavity upward, reaching an inch and a half above the tip of the external malleolus. The incision, as could be seen is wholly on the outer side of the foot, and is made with its convexity upward so as to include the blood supply to the flap, which comes off from the external calcaneal branches of the internal plantar artery. This was the old catch in operative surgery for the blood supply of the external part of the heel flap in a Syme's amputation of the foot. The flap of skin is dissected up and turned down. The two peronei tendons, the longus and the brevis, are identified, manipulated from their groove on the back of the fibula, and caught in tissue forceps. With a piece of sterilised gauze placed over the front of the ankle-joint, the joint level is estimated and marked on the fibula, which is then divided with a saw or osteotome into the ankle-joint. Then, with forceps and knife, the fascial structures in front of the ankle-joint are divided, exposing the outermost tendon, the extensor minimi digiti. Having done this, the foot can be levered and fully inverted so that it pivots on the internal malleolus and the sole looks towards the trunk. By this manœuvre full and perfect exposure of the lower end of the tibia and of the astragalus is obtained. So far there is no other operation which gives such good exposure and allows the surgeon to do his work so thoroughly. The peronei tendons are seen to be tight running across the posterior part of the wound. It is here that they are accidentally divided. It is usually desirable to remove the astragalus in these cases, and it is best done from behind. First, the peronei tendons must be identified, and just above them the line of junction between the astragalus and the calcaneum, into which slip the end of an elevator. With this instrument the joint surfaces are levered open so that a knife can enter the joint and divide the interosseous ligaments between the astragalus and the calcaneum. The joint can now be opened and the astragalus quickly prized from its anterior attachments. When the astragalus has been taken away all disease can be removed from the calcaneum. So that before the foot is reduced to good position again, the surgeon has had full opportunities to remove all traces of the disease. This displacement of the foot is now reduced, and it is seen that no vessels require ligature. The fragments of the fibula are united with catgut. Owing to the anæmia produced by the inverted foot having some analogies to that produced by Esmarch's bandage, it is desirable to drain the wound for twenty-four hours. For closing the wound Mr. Corner advised interrupted mattress sutures of catgut aborting in ten days.

Mr. Corner then performed the operation he had described. The wounds healed wonderfully well, and in a fortnight or so an anæsthetic was given and the foot placed in plaster-of-Paris splints, which had or had not a window over the wound as required. By these means the foot is retained in good position until that position can be retained by a light pexuloid splint. Mr. Corner said that this method of exploring the ankle-joint required no division of the tendons, was comparatively simple, and gave the surgeon such good exposure that no excuse could remain on that score for the surgeon failing to make a "good job" of his work. The operation was also good for deformities of the feet, such as marked talipes, equino-varus or pesplanus. It allowed of removal of the astragalus and as much of the calcaneum as was necessary to reduce the deformity.

CORRESPONDENCE.

FROM OUR SPECIAL CORRESPONDENTS AT HOME.

SCOTLAND.

EDINBURGH RECTORIAL ELECTION.

As we have nowadays no party politics, the two party associations of Edinburgh students have decided to avoid a contest this year, and have been fortunate enough to secure the acceptance by Lord Kitchener of the post of Lord Rector. Sir Edward Carson had been chosen as the Unionist, Sir John Simon as the Liberal Candidate, but both these gentlemen have written endorsing the attitude of their supporters. In his letter Sir Edward Carson says that it is "essential that someone should be selected whose name will be acceptable to both parties," and the Attorney-General that "this is a time when controversy on party lines should as far as possible be avoided." In his reply to the invitation to become Lord Rector, sent by the Presidents of the Representative Council, the University Union, and the two political associations, Lord Kitchener wrote as follows:—"I shall be glad if you will be so good as to accept yourself, and convey to the other co-signatories of your letter of the 11th inst., my grateful acknowledgment of the high honour which the University of Edinburgh proposes to confer on me by inviting me to become its Lord Rector. I accept the invitation with great pleasure, and shall be proud thus to be associated with an university of which I am already an LL.D., and of whose students many have joined the profession to which I am privileged to belong."

A SPECIALIST UPON THE KAISER.

Sir James Crichton-Browne has been addressing a public meeting at Kirkton, near Dumfries, in connection with recruiting. He said the causes of the war were to be seen in a crazy egomaniac of a Kaiser, in an arrogant and brutal military caste, and in a generation of Germans who had grown up since the Franco-German War of 1870 with an overweening conceit of their own importance and prowess. The Kaiser was crazy and wicked too. As a London paper said the other day, his braggart character might be inferred from his moustache. The Kaiser was a cripple and diseased, and he spoke with high German medical authority when he said so. He was so diseased that no Army Medical Officer would pass him for service as a common soldier in the ranks, and yet he was allowed to direct huge armies in the field and to control the destinies of millions of men and women.

WOUNDED IN GLASGOW.

The first considerable arrival of wounded soldiers in Glasgow took place on the 21st inst., when 200 arrived to undergo treatment at Stobhill Military Hospital, Springburn. Early in the morning two trains arrived from Southampton with the men, and the work of conveying them from the station to the hospital was carried out expeditiously, the ambulance officials having wagons and stretchers in readiness. A number of the soldiers appeared to be suffering severely, but despite the long journey the men displayed a cheery demeanour. The wounded were conveyed to the various wards, where they were attended by a large staff of doctors and nurses. The military authorities are preserving strict secrecy regarding the men. Although it is not publicly known, it is believed that several of the soldiers were attached to the Highland regiments.

THE NURSING AT STOBHILL.

The nursing at this hospital is under the auspices of the Territorial Nursing Association. Of four military hospitals under the auspices of the Association in Scotland, two are at Stobhill, one in Aberdeen and one in Edinburgh. There are eleven ladies connected with the branch in Glasgow, of which Lady Chisholm is Convener. The hospitals have been thoroughly equipped by the Government, and are in full working order. The two hospitals at Stobhill are quite separate and each has a staff of 120 nurses. Ten nurses in each hospital have volunteered for the front. One of the hospitals is under the direction of Miss Melrose, Matron of the Royal Infirmary, the Matron in Charge being Miss Thomson; while the other is under the direction of Miss Gregory Smith, Matron of the Western Infirmary, the Matron in Charge being Miss Millar.

RED CROSS HOSPITAL AT ROUEN.

The Executive of the Scottish Branch of the Red Cross Society having been informed that the Red Cross Hospital of which they had been asked to supply a section is to be formed at Rouen instead of Paris, arrangements have now been made for the despatch of the Scottish section in the course of this week. The Central Executive of the Society in London has authorised the appointment of a sub-delegate to represent the Scottish Branch and to work under the direction of Sir Alfred Keogh at Rouen. In the meantime Dr. Charles Walker has been despatched by the Scottish Executive to make preliminary arrangements, and he is now at Rouen, where his time is occupied in securing quarters for the 50 beds of the Scottish section. It is anticipated that before the end of the week the Scottish flag, which went through the Balkan War with the Scottish Red Cross Hospital, will be flying over the roofs of Rouen.

RED CROSS ORDERLIES.

Five orderlies left Glasgow on the 13th inst. for the seat of war. They were busily engaged last week in the rear of the battle line on the Aisne. Under the direction of Dr. Stewart they scour the country in motor cars with the object of tracing and bringing in wounded and stragglers, many of whom are isolated in villages and farms. Before leaving London the party was inspected by Sir Frederick Treves.

LETTERS TO THE EDITOR.

[We do not hold ourselves responsible for the opinions expressed by our Correspondents.]

FORCIBLE FEEDING.

To the Editor of THE MEDICAL PRESS AND CIRCULAR.

SIR,—If Sir Victor Horsley asks me not to infer, may I also ask him not to invent, otherwise it is impossible to carry on a useful controversy and it becomes a mere waste of your valuable space.

In his last letter Sir Victor makes the unwarrantable and, to employ his own word, "baseless" statement as follows: "Had he [*i.e.*, myself] read Hansard, as I suggested he should, he would not have repeated the absurdly false statement that the Cat and Mouse Act had succeeded." Now, as a matter of fact, I have not hitherto presumed to express any opinion on the merits of this Act; how therefore he can say I have repeated a statement I never made I am at a loss to understand. It is true that I referred to the Home Secretary's speech, respecting which I said the Home Secretary "*attempted* to demonstrate certain figures, . . . there had been a considerable reduction of crime," etc., etc., and I hinted that that might well be, seeing that before the passing of the Act criminals were let off scot free; but this is totally different from admitting the success of the Act. On the other hand, the Home Secretary's statistics convinced me that whatever effect they had on others, the Act had proved incomparably a greater failure than success; so Sir Victor and I agree on this point, although for different reasons. But these considerations afford no reason whatever why the Government, after having passed the Act—one which to all intents and purposes confers upon them the Royal prerogative in granting free pardons, and which empowers them to overrule any criminal conviction they think meet—a power too great to invest in any Government or individual, and the danger of which was pointed out in debate, and, as experience has proved; I say all this affords no reason whatever why the Government should not endeavour to render their Act a success as far as possible, which they might do by resorting more frequently to forcible feeding and preventing escape from prison through "attempts at suicide," whereas now the Act is all but a dead letter, leaving the law in a state of inertia as concerns suffragists' crimes, and as the Home Secretary refuses to regard these crimes as political, why does he not consistently treat these prisoners as ordinary prisoners?

With regard to "the torture" of forcible feeding, evidently a favourable expression of Sir Victor's and one which he harps so much upon, I might mention that an article appeared in the *Daily Mail* so long back as March 27th, 1913, under the heartrending headline "Torture That Must be Stopped," and thinking that the writer of this article had been misled, and that the general public would also be misled, I addressed a letter to the editor of that paper, which he kindly inserted, suggesting that the expression "forcible feeding" was a misnomer, and that as a substitute artificial feeding would be more appropriate, because, as I pointed out, no force was necessary except to resist counter force, and that if prisoners suffered on that account they had themselves only to blame.

This, too, reminds me of the absurd nickname "Cat and Mouse Act," as though everybody doesn't recognise that in nature the mouse which is exposed to real physical torture is not a free agent, whereas the militant suffragists are free agents and suffer no physical torture other than self-inflicted, and even then there is no analogy as they would have us believe. I note in a lexicon I consulted, "torture," amongst other definitions, is described as "anguish of body or mind," and no doubt there is some *mental* "torture" which is inseparable from all prison life.

As to Sir Victor Horsley's comparison between the non-enfranchisement of women and ordinary disease which he still maintains, as I understand him, he regards the non-enfranchisement of women as the disease and the violence of militants as merely the outcome or symptoms, and he suggests curing the disease by granting the vote, any opposition to which he thinks a resistance to "political evolution." This, I presume, is the political phase of the question, and not a medico-legal one. However, taking him on his own ground, does he really and seriously locate the disease in the disenfranchisement of women rather than in their nervous organisation or brain, because I venture to think, if I may presume, that granting the vote and the political excitement in the exercise thereof would be a far more prolific cause of mental disturbance than withholding it, and possibly this accounts for the great majority of women not wanting it. On the other hand, for aught we know, the cure not having taken place in accordance with Sir Victor's theory, "nerve storms" afresh may start in these disorganised brains, and they may organise a campaign for seats in Parliament. Would Sir Victor still hold that opposing this was opposing "political evolution"? If not, why not then as now, and in the event of violence would he continue to expatiate on the abominations and "torture" of forcible feeding, and if not, why not, as hitherto?

I am, Sir, yours truly,
Clement H. Sers.

5, Chanctonbury Road, Hove.
September 25th, 1914.

FRAUDULENT QUACKERY AND THE ETHICS OF JOURNALISM.

To the Editor of The Medical Press and Circular.

Sir,—In my last letter under the above heading I quoted the Report of the Select Committee where it deals with newspapers. The Report suggests that "the extent to which criticism is excluded from the Press may probably be judged by anyone who will take the trouble to see how much attention is bestowed by the newspapers upon your Committee's Report." I have taken the trouble the Report asks for, and the observations of my friends and myself lead us, after looking through a sufficient number of representative papers, to the conclusion that the Report has been virtually ignored by the vast majority of them from the leaders downwards. The *Times* printed a clear, but minute, notice, of no use to the public. There can be no doubt that the case against fraudulent quackery has been established irrefutably; the extent and the cruelty of it have been demonstrated beyond dispute, whilst it has been made plain that the greater part of the evil can be done away with by extremely simple legislation. Any injury upon legitimate proprietary preparations can be guarded against, but the sale of fraudulent concoctions can be entirely prevented. We have nothing to fear from quacks in a fight to a finish; they cannot, they dare not, speak in their own defence; not many out of the crowd would dare to go into the witness box. The only possible opposition is that which might come from the papers that form the front rank of journalism. The newspapers are now dividing among them more than £2,000,000 from quack nostrum advertisements alone. This, as the Report (p. 10) states, "does not include the advertisements of swindlers, like Macaura, the eye quacks, the deaf quacks, the cancer curers, consumption curers, electric belt makers, the curers of rupture without operation, and fakers generally." Besides these, there exist vast numbers of bogus instrument makers and practising quacks of many varieties. All these rogues advertise, so that £2,000,000 falls far short of the total receipts of newspapers from fraudulent advertisements. The high-class papers take the bulk of this vast sum, from £5,000 to not much less than £50,000 a year each. It is their conduct that forms the unanswerable excuse for all papers of a lower rank. These, when challenged, invariably reply, "We are business undertakings; we feel we have no right to deprive our shareholders of profits derived from advertisements such as are to be found in the majority of leading papers, including most of those that set themselves up as especially the enemies of every species of humbug and fraud." And our papers really not only assume the *rôle* just named, but they all proclaim themselves the guardians of the national honour and protectors of the people, especially of the poor and ignorant. Some papers base themselves also on piety and religion, and the columns of these are the most crowded with advertisements of crudely fraudulent quack medicines. The question how to put an end to this—one of the greatest scandals of the day—to compel or persuade a great body of men who, while jealous of their honour, are knowingly making their living or amassing wealth by participating in the gains of the most cynical, cruel and callous band of the army of malefactors that still hangs on to the back of modern society. We must persuade them or compel them to break this unholy alliance. I trust that persuasion may suffice, otherwise we have left a powerful instrument of coercion in the evidence given before the Committee. To me was given the chief share in describing the position of newspapers; to this can be added the evidence given in various directions on the same subject in the course of testimony by various witnesses. This would form a document which might be, or I may say certainly would be distributed widely enough among the intelligent public to bring to shame the papers that assumed a defiant attitude. Our powers of attacking such papers would not be to any degree exhausted by the measures I suggest. I may discuss this matter further in future letters.

I am, Sir, yours truly,
Henry Sewill.

The Old Rosery,
Earlswood Common.
September 26th, 1914.

OBITUARY.

DR. L. C. PEEL-RITCHIE, EDINBURGH.

The death on September 24th, in tragic circumstances, of Dr. L. C. Peel-Ritchie has caused great regret in medical circles in Edinburgh. About five o'clock in the afternoon Dr. Ritchie was on board his motor launch in Granton Harbour, when it is supposed that he must have fallen overboard accidentally, for shortly afterwards his body was found floating in the harbour. It is said that a sailor on a boat moored not far off heard a cry for help, but by the time he got to the spot it was too late, and all efforts at resuscitation failed. Dr. Ritchie was about 40 years of age and unmarried. He was the younger son of the late Dr. Robert Peel-Ritchie, who at one time was President of the Royal College of Physicians, and was the author of the History of the College. Dr. Ritchie was an Assistant Surgeon to the Royal Infirmary, and had specialised on the lines of surgical pathology and bacteriology. He had been trained at Edinburgh, Berlin, Berne, Freiberg, Lausanne and Vienna, and had contributed a number of papers on the use of tuberculin, vaccines, and more purely surgical subjects. He was a Surgeon to the Western Dispensary, and an Examiner in Pathology to the Royal College of Surgeons. His motor launch was one of his chief hobbies, and it is doubly sad that his untimely death should have been brought about in connection with his principal recreation.

DR. CHARLES STEELE, OF CLIFTON.

We regret to record the death of Dr. Charles Steele, M.D., F.R.C.S., which took place on the 20th inst., at his residence, Clifton Villa, Richmond Hill, Clifton, at the age of 76. The deceased, who qualified as M.R.C.S. in 1860, became M.D.Durham in 1880. He had retired from active practice about six years ago. Dr. Steele was a native of Macclesfield, Derbyshire, and was the son of the Rev. John Steele, the incumbent of Christ Church in that town. After holding several appointments away from Bristol, Dr. Steele commenced practice at Meridian Place, Clifton, but soon removed to Richmond Hill, where he built up a very extensive practice. He was a Consulting Surgeon of the Children's Hospital, St. Michael's Hill, and of the Bristol Royal Infirmary, and a Brother of the Guild of St. Luke. For some years Dr. Steele was a director of Hodder and Company, and Medical Officer to the Law, Union, and Rock Insurance Company. He was an inventor of flexible probes, chair supports for spinal curvature, and steel spring splints, and the author of numerous scientific papers in the medical journals. He leaves a widow and five children—four daughters and one son—to mourn his loss.

LITERARY NOTES.

Mr. G. Bernard Shaw's "The Doctor's Dilemma" has reached us in a sixpenny edition (Constable and Co.). We confess that a re-perusal of the work, including the preface, is disappointing. Mr. Shaw's inexorable logic of inference loses its force when one recognises how deficient in accuracy are his premises. Like so many Socialists, he places self-interest predominantly among human motives. Nevertheless, even if one thinks little of Mr. Shaw's convincing power as a controversialist discussing matters he knows little about, no one can read his play without enjoying his satirical gifts. He hits off with marvellous skill the foibles and mannerisms of the various types of doctor. His shafts are keen, but they are delivered with a not unkindly laugh.

* * *

M. Boureille, Director of the Anti-Tuberculous Preventorium of the Boulevard Garibaldi, Paris, has been so good as to send us a pamphlet he has written dealing with the use of Vallée's anti-tuberculous serum. Dr. Boureille has also been so good as to forward us a review of this pamphlet, with a request that we should insert it in our columns. We have to refuse for two reasons—first, our reviews are intended to express the opinion of competent critics on works submitted to us, and not the opinion of the author on his own work, and, secondly, the review is written neither in French nor in English, but in an unhappy blend of the two. As we are not invited ourselves to review the pamphlet, our task is ended in acknowledging its receipt.

MEDICAL NEWS & PASS LISTS.

National Maternity Hospital, Dublin.

The following information reached us too late for insertion in our Educational Number:—

The hospital, which is situated in a densely populated district, consists of lying-in wards, wards for gynæcological cases, an extern maternity, and a dispensary for the treatment of diseases peculiar to women, which is open daily. The number of patients attending the hospital is rapidly increasing. Facilities are given to students for obtaining a practical knowledge of this branch of the profession, and they are admitted to the practice of all the deparments. Resident Pupils and a Clinical Clerk are elected from the students attending. The Certificates of attendance upon the Hospital are recognised by the Licensing Bodies.

Terms of attendance.—Pupils: Board. 18s. per week; six months, 6 guineas; three months, 4 guineas; shorter courses and post-graduate courses by special arrangement.

For further particulars apply to the Masters—Dr. A. J. Horne, 94 Merrion Square; Dr. R. J. White, 39 Lower Baggot Street, or at the Hospital.

Dublin Skin, Cancer and Urinary Hospital, Hume Street, Dublin.

The hospital was opened in July, 1911 (in succession to the late City Hospital for Diseases of the Skin and Cancer, Brunswick Street, Dublin), for the treatment of diseases of the skin and cancer and of the kidney and associated organs.

In connection with the skin and cancer department there is an electro-therapeutic department, comprising the following apparatus:—Finsen and lupus lamps, X-rays, high-frequency, electrolysis (for ionic medication, etc.), galvanism, radium, and quartz lamp.

There are twelve wards, with accommodation for about 60 patients, and an extern department, where over 2,000 patients were registered for the year (1913-1914).

Clinical instruction in the wards and the out-patient department is given every morning from 10 to 11, when the attendances of practitioners and senior students is invited.

Post-graduate courses have been arranged for medical practitioners and senior students, full particulars of which can be obtained from Andrew Charles, F.R.C.S., 64 Harcourt Street, Dublin.

"Canada's Gift": A Suggestion for the Prince's Fund.

Canada is making a splendid gift of flour to the Mother Country. It has been decided that the sacks, when empty, should be sold as souvenirs at 5s. each. Two-thirds of this sum will be devoted to the Prince of Wales's National Relief Fund, and one-third to the Belgian Refugees Fund. The sacks are all marked "Canada's Gift." Applications for the sacks as souvenirs, accompanied by a remittance of 5s., should be sent to the Hon. Secretaries, National Relief Fund, York House, St. James's Palace, London, S.W. Applications will be dealt with in strict rotation.

The British Pharmacopœia.

The Executive Committee of the General Medical Council has received a report by the Registrar on the postponement of publication of the *British Pharmacopœia*, 1914. It was resolved, on behalf of the Council, that advance copies should be made accessible to the public for inspection at the offices of the Council in London, Edinburgh, and Dublin on Thursday, October 1st, at 10 a.m., and thereafter from 10 a.m. to 4 p.m. daily. The official publication of the work will be made by notices in the *Gazettes* on December 31st.

The Final Examination of the Conjoint Board of England.

At a special meeting of the Council of the Royal College of Surgeons held last week the following candidates who have passed the special war examination were admitted members of the College, and at a meeting of the Royal College of Physicians of London, also held last week, they had licences to practise physic granted to them:—

H. L. Addison, C. L. Balkwill, L. W. Barlow, B.A. Camb., S. Batchelor, T. B. Batchelor, M.A.Oxon., J. D. Batt, L. W. Batten, B.A.Camb., K. B. Bellwood, B.A.Camb., G. A. Berkeley-Cole, K. Biggs, W. McH. Binning, Z. M. Bishara, W. H. Blakemore, Marjorie A. Blandy, W. H. Boyd, J. J. Brown, O. D. Brownfield, F. B. Bull, L.D.S.Eng., Bruce Burnside, B.A. Camb., L. J. Cameron, M.D.Manitoba, G. D'R. Carr, B.A.Camb., E. Catford, P. R. Chevreau, G. F. Clifton, B.A.Camb., J. S. Cocks, L.D.S.Eng., W. T. Collier, B.A.Oxford, W. J. Cook, M.D., C. M. McGill, L. P. Costobadie, R. I. Dacre, J. H. Dancy, T. W. David, P. V. Davies, M. de Costa, E. R. Dermer, M. Dia, S. O. Dolan, A. J. D'Souza, L.M.S. Madras, H. Dunkerley, J. A. Durante, M. K. El Kholy, R. F. Fagan, F. E. Feilden, H. D. Field, R. O. Fisher, M.B.Toronto, J. E. Foley, E. D. Fountain, H. R. Friedlander, C. de W. Gibb, G. F. P. Gibbons, E. H. H. Granger, B.A.Camb., G. L. Grant, B.A. Camb., A. R. Green, M.B., Ch.B., S. L. Green, E. R. G. Greville, E. F. Guy, Norah Hamil, E. E. Herga, A. E. Huxtable, L. M. Ingle, B.A.Camb., R. W. P. Jackson, B.A.Camb., C E. Jenkins, Rosalie Jobson, S. W. M. Jones, S. H. Keys, G. P. Kidd, N. S. Koch, G. C. Kusumbeker, L.M S.Bombay, F. C. Lapage, R. A. Leembruggen, A. B. Le Mesurier, M.B.Toronto, K. W. Lewis, J. A. Liley, A. H. Little, B.A.Camb., I. H. Lloyd-Wiliams, E. R. Lovell, H. D. McCall, B.A. Camb., F. O. MacGibbon, R. MacGill, Helen M. M. Mackay, A. S. L. Malcolm, B.A.Camb., Edith M. Martland, C. J. D. May, H. L. Messenger, L.D.S.Eng., V. R. Mirajkar, L.M.S. Bombay, L. W. Mortimer, A. R. Muir, W. D. Newcomb, B.A.Camb., G. M. Oakden, L.D.S.Eng., G. W. Parry, H. R. Parsloe, Margaret R. Paterson, J. E. Pearce, C. H. G. Penny, L.D.S.Eng., M. G. Pettigrew, L. R. Pickett, L.D.S.Eng., Emma C. Pillman, J. Pinder, J. A. Pridham, G. D. Read, B.A. Camb., F. T. Rees, H. C. C. Rennie, M.B., B.S. Adelaide, A. St. Johnston, E. A. L. Sansom, W. G. Shakespeare, J. P. Shaw, R. H. Simpson, B. H. Singh, H. Smith, C. S. Staddon, E. C. W. Starling, B.A. Camb., F. Sykes, L. H. Terry, G. R. S. Thomas, B.A.Camb., P. Thornton, Naomi Tribe, G. S. Trower, B. M. Tuke, J. L. Waller, E. Watson-Williams, B.A. Camb., G. C. Wells-Cole, B.A.Camb., L. H. W. Williams, and M. U. Wilson.

St. Mary's Hospital Medical School (University of London)—Entrance Scholarships for 1914.

At the examination held on September 21st-23rd, the following awards were made:—

Open Scholarship in Natural Science.—J. O'F. Fletcher, W. F. Francis, H. E. Suter.

University Scholarships.—J. W. G. Phillips, T. S. Evans.

University Exhibition.—R. A. Woodhouse.

Epsom College Scholarship (by nomination).—R. L. Walker.

Army Medical Service.

R.A.M.C.—The following have been granted the temporary rank of Lieutenant:—G. A. Gates (September 12th); G. James (September 14th); S. C. R. Flaxman, J. M. Renton, A. C. Hancock (September 15th); F. S. Brereton, late Captain R.A.M.C., J. McI. Morgan, J. McTurk, H. F. Woolfenden, J. Kirker, J. S. Lloyd, W. N. Kingsbury, G. W. Lloyd, H. J. Rawson, E. Stratford, R. R. K. Paton, C. H. B. Booth, G. E. Beaumont, P. Cagney, J. D. G. Stewart, E. F. Edmunds, S. P. Stoker, H. G. Janion, R. F. Wilkinson, O. C. Link, E. E. Holden, E. C. Black, W. Griffith, C. St. A. Vivian (September 16th); R. F. Bolt, D. S. Cooper, W. C. Horton, C. M. Jones, R. B. Johnson, A. C. Jepson, W. H. Parry, H. Pierce, J. H. Paterson, H. C. D. Miller (September 17th); J. Wilson, (September 18tb); Captain R. P. Nash, 2nd Eastern General Hospital, R.A.M.C., T.F., G. V. Bakewell, F. F. Middleweek (September 19th), L. H. F. Thatcher, I. B. D'Olier, O. de B. Marsh (September 21st); P. Gully, B. J. Hackett (September 23rd).

WAR REFUGEES.

The following Memorandum of Information has been issued by the Local Government Board for the guidance of local committees formed to arrange for hospitality to Belgian refugees, some 6,000 of whom have already been provided with accommodation in various parts of the country:—

(1) All towns or districts which are included in the list of "prohibited areas" in the Second Schedule of the Order in Council of September 9th, are unsuited for the reception of refugees in large numbers. It is, therefore, undesirable that local committees should be formed in these areas without the approval of the local police.

(2) As soon as a committee is formed offers of hospitality should be obtained from residents within the district, and the War Refugees Committee, General Buildings, Aldwych, W.C., should be informed of the number of refugees which can be accommodated.

(3) The refugees who have arrived in this country are generally in families or groups of families, and each group is almost invariably accompanied by at least one man. There have been hardly any young boys or girls unaccompanied by older relations. Offers of hospitality, therefore, for children alone cannot be utilised, and offers of hospitality for families should include accommodation for men.

(4) Families should be housed as far as possible in the same house, and where this cannot be arranged, they should at least be housed in the same street or village.

(5) The refugees are mostly of the peasant and tradesmen class, and very few can speak anything but French or Flemish, and many of them only Flemish.

(6) The railway fares of the refugees from London to the local centres will be paid by the Government, and the Local Committee will be advised by telegram of the train by which the refugees will arrive, and of the number of men, women and children in each party. They must be met on arrival at the station by a representative of the Local Committee.

(7) The guard of the train by which the refugees travel will be provided with a list of the party, and each individual will bear a label on which is written his name and the name of the station to which he is travelling.

(8) If the number arriving by any particular train is small, they can probably be allocated at once to the homes destined for them, in which case conveyances should be waiting for them at the station.

(9) If the number is large, or the distance from the station to the homes is great, arrangements should be made to house and feed them temporarily at a local depôt pending allocation. It is important that the families should be kept together at the depôt.

(10) Local committees will be responsible for the refugees after their arrival. All homes offered for their reception, therefore, must have been previously inspected by some member of the Committee, and satisfactory evidence obtained that they are of a desirable character.

(11) The refugees have been medically examined before leaving Belgium, and have also been passed by the Medical Officer at the port of landing. Provision should be made by the Local Committee for medical attendance where necessary.

(12) A local register must be kept of all refugees received so that each family or member of a family can be traced at any moment, and the War Refugees Committee in London should be informed of the addresses at which the refugees are placed, and the subsequent changes of address. The register should be available locally for the Medical Officer of Health.

(13) Arrangements should be made for the refugees to be visited at frequent intervals by persons who can speak French or Flemish.

SUMMARY OF RECENT MEDICAL LITERATURE ENGLISH AND FOREIGN.

Specially compiled for THE MEDICAL PRESS AND CIRCULAR.

Artificial Pneumothorax.—Lyon (*Boston Med. and Surg Jnl.*, August 27th, 1914) records his experience of the therapeutic value of artificial pneumothorax in the treatment of pulmonary tuberculosis. He concludes that it gives the best results in cases of unilateral pulmonary tuberculosis in which pleural adhesions have not formed. Its application should not, however, be confined to these patients, for if it were its usefulness would be extremely limited. Patients with bilateral disease, in whom the active disease in the untreated side is limited to the apex, will, in many instances, show satisfactory improvement after being subjected to this treatment. When the treatment is resorted to in patients in whom the active disease has extended beyond this point in the untreated side, the results are frequently unsatisfactory. The replacing of a tuberculous pleural effusion by sterile nitrogen gas will prevent the formation of pleural adhesions and will prevent the re-accumulation of the fluid. Dr. Lyon believes that artificial pneumothorax therapy is applicable to a very limited number of patients with advanced pulmonary tuberculosis, and that the best results will follow its careful administration to those patients with incipient or moderately advanced disease who have failed after a reasonable length of time to respond to the older and better known forms of treatment. K.

Transfusion in the Treatment of Hæmorrhages of the New Born.—Lespinasse (*Journ. Amer. Med. Assoc.*, June 13th, 1914) points out that there are three main indications for this form of treatment in the hæmorrhagic disease of young children: (1) The bleeding must be stopped; (2) the lost blood must be restored; (3) the infection, which is often the cause of the bleeding, must be overcome. He believes that the direct transfusion of live non-clotted blood best fulfils these indications. In support of his contention he reports fifteen cases in which this treatment was adopted and was followed by satisfactory results. The children treated varied in age from ten hours to seven days, and all recovered except two, both of whom had severe congenital syphilis. In ten of the cases the donor of the blood was the child's father, in one the mother's half-sister, and in the others a non-relative. The duration of the transfusion varied from five to fifteen minutes. In the case that took fifteen minutes the donor of the blood, the father, fainted, thus reducing his blood-pressure so low that it took longer to fill the baby with blood. Dr. Lespinasse concludes that "direct transfusion of blood stops the bleeding, restores the lost blood, and aids in overcoming the infection. Direct transfusion has cured where all other methods have failed. Transfusion should be used early, but so long as there is a spark of life it is never too late to transfuse." K.

Syphilis of the Liver.—Cheney (*Amer. Jnl. of the Med. Sciences*, August, 1914) records several cases of syphilis of the liver that closely resembled cirrhosis and from this experience draws the following conclusions:—(1) In any case that appears to be cirrhosis of the liver, judging from clinical history and physical signs, the blood should always be examined for syphilis. If the Wassermann reaction is positive, vigorous specific treatment will often produce marvellous improvement not to be expected in any other way; but even when the reaction is positive the liver disease may not be luetic, and so specific therapy may prove of no avail; yet at the same time the therapeutic test will have given valuable information and have done no harm. (2) There is no certain way to tell which case of hepatic cirrhosis is luetic and which is not, except by the blood test, for previous history of infection or other manifestations of syphilis, as well as stigmata produced elsewhere in the body by the disease, may all be lacking absolutely, while there may be nothing about the condition of the liver on physical examination, or the symptoms it produces to determine the ætiology or to distinguish ordinary portal cirrhosis from luetic. (3) Syphilitic cirrhosis of the liver is a common form of hepatic disease, and must never be forgotten in the differential diagnosis of any cases where symptoms and signs point to the liver as the organ involved. K.

Displacements of the Genital Canal.—Bonney (*Jnl. Obs. and Gyn. Brit. Emp.*, xxv. 6), considers the ætiology of the condition and divides the supports of the uterus into three groups, any one of which alone may cause or allow displacement to develop, or failure in one group may be combined with failure of one of the others, or all three be at fault. Thus seven different causes or combinations may be found, and each produces its own particular variety of displacement. Each class of displacement requires to be treated in the manner which will rectify the groups of supports at fault, either by restoration of the parts or their functions, or by substituting some other structure to do the work of the faulty supports. Indiscriminate application of a particular method of treatment should be abandoned in place of measures founded on the nature of the displacement. The absence in the past of a scientific basis to operative treatment has led to much faulty surgery. F.

Pathology and Treatment of Chronic Leucorrhœa.—Curtis (*Surg. Gyn. and Obs.*, xix., 1) says that the characteristic of smears and cultures from leucorrhœal discharges is the preponderance of anaërobic bacilli. Cultures from the vulva, as compared with those from the higher vagina, contain more aërobes. Gram-positive diplococci are always present in vaginal smears. Gonococcus resist positive identification unless in considerable numbers, and then only if found in typical arrangement. It prepares the field for other organisms, and then itself becomes undemonstrable. The uterine cavity tends to remain free from infection. The usual seat of formation of purulent discharges is the lower genital tract—*i.e.*, cervix, vagina, vulva. Indications for treatment are improvement of general health; avoidance of treatment which is not indicated, such as douching and plugging; arrest of excessive mucus from the cervix, and curative by vaccine and powders applied to the vagina after careful drying. F.

Placenta Prævia and its Treatment.—Nogel (*Surg., Gyn. and Obs.*, xix., 1) reports fifty cases treated personally at home in connection with the Royal Charité at Berlin. He strongly advocates Braxton Hicks' method as being the best at the command of the practitioner and meeting the requirements in most cases. He claims that asepsis can be carried out in spite of primitive conditions, and condemns the advice that in urgent cases disinfection should be disregarded and the operation gone on with. In urgent cases there is always time for disinfection, and that can be shortened and always should be assisted by the use of rubber gloves. The paper is interesting as coming from the extern department of a German clinic in view of the strong advocacy for operative treatment, such as Cæsarean section in placenta prævia, which is being made all over the Continent and America. F.

Pituitary Extract in Labour.—Madill and Allan (*Surg, Gyn. and Obs.*, xix., 2) record a study of 147 cases in the Rotunda Hospital, Dublin. The dose used in all cases was not less than .2 gm. of the extract. This is believed to produce better results than two

.1 gm. doses with an interval between. The injections were chiefly given intra-muscularly, but later the injections have been given subcutaneously, and are thought to give better results. It is concluded that pituitary extract undoubtedly increases the strength of the uterine contractions, and these maintain their physiological characters. The best results are obtained in the second stage of labour. Its use reduced the number of forceps cases, with consequent lessening of mortality. It is safe for the mother, and at least as safe for the child, as forceps. It gives improved results for mother and child in placenta prævia if used in combination with version.

F.

Ne-Arthrosis as a Curative Treatment for Ankylosis.—Tubby (*Practitioner*, August, 1914) points out that flaps of muscle have proved successful in making nearthrosis in many ankylosed joints. When a flap of muscle is inserted between the freshened bone-ends, it degenerates into fat; then cavities appear in it, which coalesce, develop a serous lining, and form a synovial cavity, so that the muscle eventually becomes a false bursa, just as false bursæ develop over abnormal prominences of bone. Ankyloses of the jaw are most difficult and unsatisfactory to treat. The knee joints are also unsatisfactory, as if the ultimate movement is good, stability may have been endangered, while it the joint is stable the degree of mobility is very small. Professor Baër has reported 52 cases in which chromicised pig's bladder had been found to be of great use. In cases where pig's bladder is used, post-operative treatment should not be of less than six months' duration. Voluntary movement, not earlier than three, and not later than six weeks after operations, should be employed in treatment, rather than forcible manipulations under anæsthetics. Whole joints have been implanted with varied success. Groebel recently implanted a toe-joint into a finger to take the place of a joint resected for severe arthritic deformity; and the patient, a violinist, was able to resume his occupation with a good movable finger. Eloesser removed aseptically a finger-joint from the cadaver of a man who died twelve hours previously, and with it successfully replaced an ankylosed metacarpo-phalangeal joint of a patient's index finger 60 hours after the donor's death. The result, a month afterwards, was 35° active and 60° passive motion in the joint. The new bone was firmly ossified on the side to the metacarpal bone, on the other to the phalanx.

S.

MEDICAL WAR ITEMS.

It is reported that at least four Medical Inspectors of the Local Government Board—Dr. R. J. Reece, Dr. S. Monckton Copeman, F.R.S., Dr. T. Carnwath, and Dr. J. M. Hamill—are with the colours.

The English Convent at Bruges has been converted into a hospital for wounded soldiers. Seventy beds have been set up there, and these have been in constant use. A British surgeon, Mr. Samuel Osborn, assisted by three house surgeons (Messrs. Cook, Forrest Smith, and Thompson), and three nurses (the Hon. Miss Colborne, Miss Baines, and Miss Judith Osborn) have attended the wounded soldiers with, says *La Patrie*, "a zeal and a devotion beyond all praise." Mr. Osborn for eight days attended upon the wounded at Gembloux at the rate of 170 a day, and then gave way to the German doctors, who, in acknowledgment, packed him and his staff off to Liége in a wagon drawn by oxen.

The beautiful residence of Mr. R. E. Bush, of Bishop's Knoll, Stoke Bishop, has been offered by him to the War Office as a hospital for wounded soldiers. The offer has been accepted, and the building is officially described as a "supplementary hospital to the Second Southern General Hospital," which is the Royal Infirmary, Bristol. Dr. J. A. Nixon is the Medical Officer in Charge, and Mr. A. Rendle Short is the Chief Surgeon.

The British Red Cross Society has now been authorised by the War Office to send out to Paris 30 surgeons, 150 nurses, and a proportionate number of orderlies. The Society is making arrangements for their dispatch at once. Authority has also been given at the same time to the British Red Cross Society to dispatch 100 motor ambulances. The Society is arranging this in conjunction with the Royal Automobile Club, and it is expected they will be delivered in Paris in less than 14 days.

STORY OF THE SURGEON OF THE LATE H.M.S. CRESSY.

Dr. Gerald Noel Martin, Temporary Surgeon on the *Cressy* (says the *Daily News*), was two and a half hours in the water after the cruiser went down, and he suffered agonies from cramp after he was rescued. Dr. Martin, whose father was a well-known medical practitioner in Sheffield, is Surgeon at the Sussex County Hospital at Brighton. When the war broke out he volunteered for active service, and was appointed to the *Cressy*.

"Captain Johnson," he said, "was in command of the ship. When I last saw him he was in the water, and even then he was thinking of others. I heard him instructing the men to keep their mouths closed and breathe through their noses. Those who could not swim and were clinging to the wreckage he counselled to keep their legs in motion so as to avoid losing warmth. Knowing that the padre (the Rev. J. H. Collier) could not swim, I found a lifebuoy and let him cling to it before he got into the water. Afterwards he shared it with Staff-Surgeon Sawdy. The two officers held on to the sides of the lifebuoy and massaged each other's legs. The sea was choppy and the waves about ten feet high. Such a sea is very favourable for the operations of submarines. Last week when we were having rough weather submarines would have been quite useless.

"Owing to the state of the sea it was difficult for a practised eye, and impossible for an unpractised eye, to discern the periscope of a submarine. I cannot profess to have seen a submarine, but when a gunner fired at a submarine and the shell burst I saw two men come to the surface and swim towards us. I was watching them through my glass. The general impression on the *Cressy* was that there was more than one submarine, that there were probably three, and that one was sunk by our fire."

"Half a mile away to the right," said Dr. Martin, "there was a fishing smack flying no flag. As she made no attempt to get near us, she was considered to be acting in concert with the submarines; we fired at her and set her alight. A second submarine was seen by our gunner, and he fired at her; but he was hampered by the fact that the men of the *Aboukir* and the *Hogue* were swimming about close by. The belief that there was more than one submarine is strengthened by the fact that the previous night there was a signal notifying that three submarines were coming south."

NOTICES TO CORRESPONDENTS, &c.

☞ Correspondents requiring a reply in this column are particularly requested to make use of a *Distinctive Signature or Initial*, and to avoid the practice of signing themselves "Reader," "Subscriber," "Old Subscriber," etc. Much confusion will be spared by attention to this rule.

SUBSCRIPTIONS.

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Small announcements of Practices, Assistancies, Vacancies, Books, etc.—Seven lines or under (70 words), 4s. 6d. per insertion: 6d. per line beyond.

M.B.GLASG. (London, S.E.)—The use of the chemical name is certainly preferable to proprietary trade names of certain synthetic drugs, in view of the unsettled conditions brought about by the war. Thus, heroin should be prescribed as acetomorphine hydrochloride.

DR. R. S. (Essex.)—The cancelling of the post-graduate lectures in certain institutions in London is due, not to the fact that no audiences are expected, for many men must necessarily remain at home at their posts, but rather because the lecturers themselves do not know whether they will be able to keep their engagements under the present circumstances.

LEX SCHOLÆ (Lyme Regis).—It seems hardly necessary to insist that a separate pen, pencil, and book should always be provided for every child at school. Cases are constantly occuring in which these articles are the source of infection.

THE WAR AND HEALTH WEEK.

IN consequence of the war the general observance of Health Week, which was to have taken place in November, has been indefinitely postponed, but it is hoped that the arrangements for lessons and addresses in schools and prize essays for children will be carried out. The Committee which was appointed by the Royal Sanitary Institute considered several suggestions for applying the organisation to civil and military conditions arising out of the war, but there appeared no practical way in which that could be done.

PUBLIC SCHOOL VOLUNTEER.—From your description you appear to have the right kind of service boot for the front. It should be remembered, however, that the socks are hardly less important for the comfort and efficiency of the soldier on active service. They should be undarned, for nothing causes a painful blister more quickly than darns. The best material is stout wool, and the socks should be of the best material and workmanship. Personally the writer has never met with any more suited for marching purposes than those sold by the Dr. Jaeger Company (Strand, London, W.C.), although this testimony must not be taken in support of the whole of the hygienic claims advanced by the makers for Jaeger clothing generally. Another important point is to make absolutely sure, by personal examination or preferably by a shoemaker, that there are no nails projecting nor likely to project from the sole. We shall be glad to answer any other questions you may care to put to us.

MR. T. B. (Southwark.)—Our correspondent might apply to the resident physician at Brooke House, Clapton, N.E., for particulars as to the admission of the case in which he is interested.

Meetings of the Societies, Lectures, &c.

THURSDAY, OCTOBER 1ST.

NORTH-EAST LONDON CLINICAL SOCIETY (Prince of Wales's Hospital, Tottenham, N.).—4.15 p.m.: Opening address by Sir John Collie, M.D., on "The Doctor as a Business Man."

FRIDAY, OCTOBER 2ND.

WEST LONDON MEDICO-CHIRURGICAL SOCIETY (West London Hospital, Hammersmith, W.).—8.30 p.m.: Presidential address by Mr. Aslett Baldwin, F.R.C.S., on "The Prevention of Post-Operative Discomforts."

Vacancies.

Enniskillen Union Dispensary.—District Medical Officer. Salary £125 per annum, with £15 a year as Medical Officer of Health, and Registration and Vaccination Fees. Applications to Richey Wilson, Clerk of the Union. (See advt.)

Certifying Factory Surgeons.—The Chief Inspector of Factories announces the following vacant appointments:—Ardagh (Limerick), Patterdale (Westmorland).

Royal South Hants and Southampton Hospital.—House Physician. Salary £120 per annum, with rooms, board, and washing. Applications to T. A. Fisher-Hall, Secretary.

Victoria Hospital, Burnley.—Second House Surgeon. Salary £135 per annum, with residence, board, and washing. Applications to F. A. Hargreaves, Hon. Sec., 7, Grimshaw Street, Burnley.

Kent County Asylum, Chartham, near Canterbury.—Junior Assistant (Third) Medical Officer. Salary £250 per annum, with furnished quarters, attendance, coal, gas, milk, garden produce, washing, and board. Applications to Medical Superintendent.

Winsley Sanatorium for Consumption.—Assistant Resident Medical Officer. Salary £150 per annum, with board, residence, and laundry. Applications to Frederick Jones, Secretary, Winsley Sanatorium, near Bath.

Winsley Sanatorium for Consumption.—Senior Resident Medical Officer. Salary £300 per annum, with board, residence, and laundry. Applications to Frederick Jones, Secretary, Winsley Sanatorium, near Bath.

Rotherham Hospital.—Assistant House Surgeon. Salary £110 per annum, with board, lodging, and washing. Applications to the Secretary, G. W. Roberts, 8 Moorgate Street, Rotherham.

Hulme Dispensary, Dale Street, Stretford Road, Manchester.—House Surgeon, duly registered and fully qualified. Salary £130 per annum. Annual increase £10 to £200, with apartments, attendance, coal and gas. Applications, with testimonials, at once to Honorary Medical Secretary.

Nottingham General Dispensary.—Assistant Resident Surgeon.—Salary £180 per annum, with apartments, attendance, light, and fuel. Applications to C. Cheesman, Secretary, 12 Low Pavement, Nottingham.

Horton Infirmary, Banbury.—House Surgeon. Salary £120 per annum, with board and residence. Applications to E. Lamley Fisher, Hon. Secretary, Horton Infirmary, Banbury.

Manchester Northern Hospital for Women and Children, Park Place, Cheetham Hill Road. House Surgeon. Salary £120 per annum, with apartments and board. Applications to Mr. Hubert Teague, Secretary, 38, Barton Arcade, Manchester.

Appointments.

DUNDAS, GRACE G., L.R.C.P. and S.Edin., F.R.C.S.Irel., D.P.H., Medical Officer of Health of Ramsgate and School Medical Officer during her husband's absence on active service with the Territorials

PRATT, E. F., M.B., B.S.Durh., Certifying Surgeon under the Factory and Workshop Acts for the East Newcastle District of the county of Northumberland.

ROSS, J. M., M.B., Ch.B.Edin., D.P.H., Medical Inspector of School Children to the Wigtownshire Education Committee

RUXTON, W. L., M.B., C.M.Aberd., Certifying Surgeon under the Factory and Workshop Acts for the West Newcastle District of the county of Northumberland.

Births.

AMSLER.—On September 21st, at Eton, the wife of Dr. Maurice Amsler, of a daughter

BROWN.—On September 26th, at The Uplands, Minchinhampton, Glos., the wife of Alfred Brown, M.D., of a daughter.

DUDGEON.—On September 26th, at 6 Stanhope Street, W., the wife of Leonard S. Dudgeon, F.R.C.P.Lond., of a son.

KENNARD.—On September 25th, at 12 Bedford Square, W.C., the wife of Dudley Kennard, F.R.C.S. (*née* Frieda Hoffmann), a son.

LAKE-HOPE.—On September 20th, at St. Mary's, Hampton Wick, to Dr. and Mrs. Percy Lake-Hope—a daughter.

MOORE.—On September 22nd, at 56 St. Paul's Road, Clifton, Bristol, the wife of Clifford A. Moore, M.S., F.R.C.S., of a son.

Marriages.

COLEBROOK—CAMPBELL.—On September 24th, at St. Stephen's Church, Gloucester Road, Leonard Colebrook, M.B., B.S., and Captain R.A.M.C., T., son of the late Maj. Colebrook and of Mrs. Colebrook, Letchworth, to Dorothy, youngest daughter of the late John Scarlett Campbell, I.C.S., and Mrs. Scarlett Campbell, 1 Queen's Gate Place.

HALL—SLATTER.—On September 22nd, at St. Andrew's, Welis Street, W., Georgo Hall, M.D., Wyndham Lodge, Milford, Surrey, to Bessie, youngest daughter of the late John Slatter, of Adelaide, South Australia, and niece of the late Thomas Harvey Hill, M.R.C.S., Stanhope Terrace, W.

SANGSTER SIMMONDS—BARWELL.—On September 19th, at Shoreham Parish Church, very quietly, by special licence, Bernard Sangster Simmonds, M.B., B.S., of Lancing, to Elsie Mary, only child of the late John Barwell, and Mrs. Barwell, Blackheath, and niece of Mr. and Mrs. Carden, Brodie, Shoreham.

THOMAS—VERRALL.—On September 22nd, at West Hoathly, Sussex, James Hugh Thomas, M.B., Market Harborough, youngest son of the Rev. D. G. Thomas, some time Rector of Hamerton, to Mary Willoughby Hodgson, younger daughter of the late Hugh John Verrall and Mrs. Verrall, of Brighton and Crowborough.

Deaths.

ARMSTRONG.—On September 15th, Arthur Keith Armstrong, L.R.C.P., M.R.C.S., Lieut. R.A.M.C., died from his wounds, beloved husband of Louise Armstrong and only son of Mr. and Mrs. Henry Armstrong, 42 Dartmouth Park Road, London, N.W., aged 33.

BRANDER.—On September 16th, at Aspley Road, Bedford, Robert Lewis Brander, M.B., C.M.Aberd.

DE RENZY.—On September 24th, at 20 Park Hill, Ealing, Surgeon-General Sir Annesley C. C. De Renzy, K.C.B., aged 85 years.

DINGLE.—On September 12th, at Chestnut Avenue, Derby, Edward Douglas Dingle, B.A., M.B., B.S.Durh., aged 50.

FORBES.—On September 24th, at 78 Merton Road, Bootle, Dancan Ferbes, M.A., M.D., aged 62.

MAY.—On September 23rd, at High Cross, Tottenham, Edward Hooper May, M.D., F.R.C.S.Eng., in his 83rd year.

PEEL RITCHIE.—Accidentally drowned at Granton, on September 24th, Lionel Charles Peel Ritchie, Ch.M., M.D., F.R.C.S., younger son of the late Robert Peel Ritchie, M.D.

SCATCHARD.—On September 20th, killed in action, Captain T. Scatebard, R.A.M.C., youngest son of Dr. and Mrs. Scatchard, Boston Spa, Yorks.

TURNER.—On September 26th, at Springfield, Upper Clapton, Frank Edward Turner, M.R.C.S., L.S.A., son of the late Charles Tarner, of the Admiralty, aged 73.

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DALE STREET, STRETFORD ROAD, MANCHESTER.

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THE MEDICAL PRESS AND CIRCULAR.

"SALUS POPULI SUPREMA LEX"

VOL. CXLIX. WEDNESDAY, OCTOBER 7, 1914. No. 15.

NOTES AND COMMENTS.

Voluntary Hospitals and the War. THE question of the allotment of special beds in hospitals to the wounded in the war is important, affecting, as it does, the ultimate relations of the public to the voluntary medical charities. It is, of course, readily understandable that the hospital authorities share in the universal desire to help in the great crisis which has been thrust upon the nation with so much dramatic force and fury. It is necessary, however, to temper enthusiasm with wisdom; otherwise, the community may have to foot an unnecessarily heavy bill in the long run. It is in a spirit of kindly criticism, therefore, that one applies a little friendly analysis to the precise significance of the action. First of all, as regards the War Office, it may be assumed that in no previous British war has the organisation of the Army Medical Department reached so high a pitch. The lessons of the Boer War at the beginning of the present century have taken deep root, and the United Kingdom is covered with a network of military hospitals, adequately equipped and fitted for the purpose of base hospitals for the wounded who are brought across the Channel. For this organisation Government funds are practically unlimited, but so vast are the operations of the Continental war that in many instances the War Office has accepted the offer of specially alloted beds for soldiers in the larger voluntary hospitals.

Why Earmark the Beds? IT goes without saying that in our civil hospitals the wounded would have the benefit of the highest medical and surgical skill obtainable, as well as of expert nursing, but much the same remark should apply to the Army hospitals at home, founded as they are in a country which is not exposed to the harassing conditions of actual conflict, and where funds are forthcoming to any reasonable extent. Why should not the military hospitals, those long established and those added to meet the emergency, be enabled to cope with the sick and wounded from the front? If the War Office is compelled to resort to the voluntary hospitals, why should a large proportion of the latter be earmarked for the soldiers? In accepting the offer the military authorities, we understand, attempted to enforce as a general condition that their men should be attended by Army orderlies instead of by the regular hospital nurses. This somewhat grotesque suggestion shows how hard tradition dies in Government administration. It was very properly resented by one, at least, of the great London hospitals, which promptly withdrew its offer.

Is any Distinction Necessary? THE question is sure to be asked sooner or later by what right the hospital authorities set apart a proportion of their beds for a privileged class of patients. If there were no proper accommodation for the sick and wounded soldiers it would be indeed a graceless act to throw any obstacle in the way of getting them into our voluntary institutions. It can hardly be gainsaid that the temporary withdrawal of a large aggregate of available beds from the hospitals must be at the expense of the civil population, for whose relief and succour they were founded. Nor is it clear why any such special allocation of beds should be made for the sick and wounded. If the military authorities find they have not sufficient accommodation it would be no difficult matter to apply to the nearest general hospital for admission of one or more patients, a request which would doubtless secure a warm and ready response. That is a very different matter from restricting a considerable proportion of beds to a specific purpose at the expense of the ordinary civil population, whose needs in the matter are not likely to be decreased by the effects of the war. Lastly, it may be assured that the more serious cases will be treated in hospitals abroad, and that only those who seem able to withstand the journey will be brought across the Channel.

Bengal Medical Men and the War. THE landing of a large contingent of Indian troops in France to serve with the Allies is a splendid illustration of the loyalty and solidarity of our great Indian Empire, in common with all our Colonies, at the present crisis. The medical profession of India have shown the same spirit of self-sacrifice and devotion that has characterised their brethren in the West, for at a representative meeting held not long since under the chairmanship of Dr. S. K. Mullick, says the *Indian Daily News*, the following resolutions were adopted:—"(1) That the Bengal medical profession in public meeting assembled beg to tender His Excellency the Governor and through him to the Viceroy and the King-Emperor, the expression of their heart-felt loyalty at this critical juncture; (2) that it be resolved to enlist names for the formation of an unofficial medical corps and to place the same at the disposal of Government for service at home or abroad; (3) that it be recommended to the medical profession to attend at reduced fees such people as have been thrown out of employment as the result of the war; and (4) that an appeal be made to the nation for equipping a hospital-ship and the same be placed at the disposal of the authorities." Patriotism, like science, knows no distinction of race or clime.

The Medical Roll of Honour. SINCE our last issue the following names figure in the lists of casualties published by the War Office:—Officers Killed: Lieut. W. O. W. Ball, R.A.M.C., Lieut. J. Crocket, R.A.M.C. Officer wounded: Lieut. R. A. Flood, R.A.M.C. Officer previously reported missing, now reported wounded: Capt. C. T. Edmunds, R.A.M.C. The following three officers previously reported missing have now rejoined: Lieut. J. H. Bell, R.A.M.C., Capt. H. C. Hildreth, R.A.M.C., and Lieut. F. L. Tulloch, R.A.M.C.

LEADING ARTICLES.

THE TREATMENT OF CANCER BY UNQUALIFIED PERSONS.

That the treatment of disease by persons who are medically unqualified constitutes a grave public danger must be apparent to all candid observers who have paid any attention to the matter. To impose stringent regulations as to training and legal qualification upon the legitimate practice of the medical art, and, at the same time, to permit all and sundry to treat any and every malady under the sun without State guarantee is to adopt a grotesquely illogical attitude. The British law as regards medical practice has been slowly built up during the past four hundred years. Its present administration is a monument of inconsistency, feebleness and inefficiency, lacking authority to press for test cases and machinery for prosecution. The result is that any person of ordinary intelligence need not fear the law if he determines to set up as an unqualified curer of this, that or the other disease. Of all the long list of those who avail themselves of weak laws and of public credulity, none is more to be reprehended than the so-called "cancer curer"—a gross misnomer, for the only "cures" known to medical science are represented by the small percentage of cases that do not recur after surgical operation or after their disappearance under some form or other of radiotherapy—means that are certainly not in the hands of the ordinary cancer curer. There have been revelations in the medical journals extending over many years of the evils arising from that special form of irregular practice. On the 24th of September an inquest held at Reddish by the Lancashire County Coroner furnishes an illustration in point. The inquiry was held on the body of a Bolton insurance agent, aged 53, who died from cancer. The Coroner explained that deceased had come from Bolton to Reddish for treatment by Mr. Rawlings, who was not a "registered practitioner." The matter for the jury to decide was whether death was due to the criminal negligence of anyone. The law, he said, did not prevent anyone carrying on a business for treating these cases, and Mr. Rawlings was quite entitled to do it, but he must use a reasonable amount of skill and care in the treatment. It appeared from the evidence that deceased had come to Reddish for the purpose of being under Mr. Rawlings, and had been there ten weeks, when he was advised by the latter to return home and place himself under a medical man. Mr. Rawlings, who is an alderman of the Stockport Town Council, was present at the inquest, but declined to give evidence. The medical man called in at Reddish refused to grant a certificate of death, as he did not know what treatment was given, and so could not say if it accelerated death. At this the Coroner interposed (according to the report of the proceedings in the *Manchester Evening News* of September 25th) with the remark that it was only just to Mr. Rawlings to say that it probably did not hasten death. The latitude of a Coroner's Court seems to have been somewhat strained if it be correct that he thus advanced a vital conclusion which had not been supported by the medical evidence. To cap this, Mr. Rawlings, who had declined to appear as a witness, was permitted to interject the statement that the treatment was harmless. From first to last no one seems to have found out the elementary facts as to the nature of the treatment, the representations made by Mr. Rawlings to deceased, the amount paid for treatment, and other pertinent facts bearing upon the reasonableness of skill and care adopted by an admittedly unqualified person in the treatment of a deadly disease. In these circumstances we submit the verdict is practically worthless, and the inquiry should be reopened. The Coroner expressed his surprise that Mr. Rawlings had not advised the calling in of a medical man some weeks earlier, as the serious condition of the deceased must have been evident to him. Mr. Rawlings was again permitted to interrupt the proceedings by saying that "it was a fight against death," and by admitting it was moral cowardice his not telling the friends of deceased that he was dying. It would be interesting to learn what were his views as to the money which presumably was paid for his unqualified services. The jury returned a verdict of death from natural causes, a finding that the Coroner hastened to observe absolved Mr. Rawlings from all blame. Does that mean that he is to be upheld in treating cancer and in keeping persons in the dark as to their condition, and in exhibiting "moral cowardice" with regard to unqualified services for which he is receiving payment? In this particular inquiry there have been no sensational "revelations," just as there appears to have been no really searching and satisfactory inquiry. It is to be hoped that the principle involved—that of the treatment of disease by medically untrained persons—will be thoroughly sifted and exposed by the Government inquiry that has been promised to deal with the matter.

THE ATTEMPTED GERMANISATION OF LONDON UNIVERSITY.

When Lord Haldane paid his last abortive visit to Berlin to ingerminate peace, it was ostensibly given out that the real object of his visit was to study German models for the purposes of the Royal Commission on University Education in London, over which he was at that time presiding. The pacific mission failed, and although the report of the Commission, since issued, is instinct with academic culture, made in Germany, and the ideals of Berlin and Münich are held up for imitation, it is unlikely that his attempt to Germanise London University will be any more successful. The report clearly shows that the *fons et origo* of this whole "reconstitution" movement was an "association for promoting a *professorial* University" largely upon the lines of a German university (par. 21). In discussing the essentials of an ideal University, the Commissioners hold up to admiration the secondary education system of Germany, together with its "large number of universities with a settled scope and policy." They describe the work of the "Kaiser-Wilhelms-Gesellschaft," founded for the "encouragement of research" by an "association of rich men and societies to prevent the exploitation of research in the interests of individual capitalists." (par. 73). The "German seminar" is commended for imitation by undergraduates of London (par. 98), while concentration of the University buildings on a central site on the Bedford estate, discovered by a gentleman of German extraction, is regarded as essential for the purposes of higher education. The Imperial College of Technology, which was originally set up largely on the model of Charlottenburg, is pronounced to be very good; but it is in the case of the medical faculty that the Germanisation of the University is to be most completely effected if the graduate of Göttingen and his colleagues are to get their way. Here "the system of organisation proposed is, speaking generally, the German system" (p. xviii.), as described by Prof. von Müller, of Münich, and by Mr. Abraham Flexner, while "Sir William Osler supports the view that a complete reorganisation is necessary, and describes his plan of a 'hospital unit' which corresponds generally to the German clinic." The present successful system of medical education in London is condemned as too utilitarian and as failing to exert "any seminal influence in the way of ideas upon those that come under its influence." With truly Prussian arrogance we are informed that it is doubtful if there could be found one person in London fit to be a University Professor of Surgery, though possibly there may be "one or two young men fit to be University Professors in Medicine"! Sir Henry Morris, in the *Times*, has already voiced the saner views of the profession on these Teutonic proposals. He asks why should the independent medical schools be sacrificed in favour of grafting on to "our British methods a system which has been as pernicious in its origin as it is impractical in character and results." He compares the new fad, in Hegel's words, to "a conception without existence in fact" to be built on "German foundations with a Maryland crest and flying the Banner of the Great Ideal." He condemns as "a most undesirable and defective method" the proposal to allow students to be examined for degrees by their own teachers; the new graduates, he asserts, would go into practice "absolutely unfit for the responsibilities of their profession." Moreover, Sir Henry Morris foresees that "there would be an outcry against any assistance being given to a hospital largely used for research, and in the laboratories of which vivisection would be freely resorted to," and he justly fears that there would be "too much interference with patients under University control and research." *The Hospital*, in its issue of August 23rd, 1913, truly stated that thus to "Germanise our medical schools cannot fail to provoke an embittered and quite unnecessary controversy. No system on the Continent nor in the United States can show more thorough grounding in the subsidiary sciences, more painstaking and practical clinical instruction, or more genuine regard for the welfare of the patients. In sanity of judgment, just application of science to practice, and high ethical ideals, our London teaching is unsurpassed. It is no mere regard for 'the wisdom of our ancestors,' nor in the spirit of the *laudator temporis acti* that we refuse to join in Lord Haldane's demand for the surrender of such substance with a view to replace it by the shadowy substitute recommended by Mr. Abraham Flexner." These opinions were placed on record long before the lamentable exhibition of the results of German "culture" which Europe has been invited to witness since the war began. As the Prime Minister observed, "that which is specifically German in the movement of the world in the last thirty years has been, on the intellectual side, the doctrine of the supreme and ultimate prerogative in human affairs of material forces, and on the practical side the taking of the foremost place in the fabrication and the multiplication of the machinery of destruction." . . . "Louvain, Malines, Termonde—these are the names which will henceforward be branded on the brow of German culture." *Corruptio optimi pessima;* and the insidious infection of the German seats of learning with this spirit of materialism and militarism has taught us, not what we should imitate, but what we should avoid, as we would the devil, in the evolution of our great Universities throughout the Empire.

CURRENT TOPICS.

"The British Pharmacopœia, 1914."

Since the last issue of the official pharmacopœia sixteen years ago, considerable advances have taken place in medicine and pharmacology. The new edition of this standard work of reference was available for inspection last week, and for the benefit of our readers we may indicate a few of the more important changes. It is inevitable, of course, that the "B.P., 1914," should present several omissions, but we must confess to a certain amount of surprise and even of regret that the compilers have seen fit to delete such well-known drugs as Poppies, Mustard, Gamboge, Hops, Scammony, Musk, Elaterium, and Picrotoxin, as well as such useful preparations and chemicals as Emplast. Ammon. c. Hydrarg., Liq. Sodii Ethylatis, Spt. Ætheris Co., Cerii Oxalas, Acid. Gallic and Zinci Sulphocarb. On the other hand the following are among the more important new drugs, chemicals and preparations that have been introduced: — Adrenalin, Pelletierinæ Tannas, Arnicæ Flores (replacing the Rhizome), Liq. Cresol Saponatus, Liq. Formaldehydi Sapon., Tinct. Iodi Fort., Acetone, Calcii Lactas, Cresol, Guaiacol, Strontii Bromid., Resorcin, Acid. Acetylsalicylic (Aspirin), Barbitone (Veronal), Hexamina (Urotropine), Methyl-sulphonal (Trional), and Phenolphthalein. With regard to strengths, that of the Tinct. Nuc. Vom. is now half that of the 1898 tincture, while Tinct. Strophanthi is four times as strong and Tinct. Opii one-third stronger. The doses have received very little alteration. Tinct. Aconiti and Strophanthi are now 2 to 5 minims instead of 5 to 15 minims, and the dose of Thyroid Siccum is now one-half to 4 grains instead of 3 to 10 grains. It is always difficult to adjust one's self to the habit of giving a familiar drug in an unaccustomed dose, and we fancy that on and after January 1st, when the book becomes official, there will still be a brisk demand for the 1898 tinctures of the above mentioned drugs. Careful attention has been paid to standardisation of crude drugs, and the physical constants of others have been more fully defined. On the whole the new pharmacopœia represents an advance upon its predecessors, but in many ways the work would benefit by a revision at somewhat shorter intervals, say, every five years.

Drugs and Panel Patients.

As the result of an inquiry undertaken by Mr. J. F. Tocher, D.Sc., F.I.C., of Aberdeen University, at the request of the Scottish National Insurance Commission into the expenditure upon medicine and appliances, an important memorandum upon the subject has just been issued. After a scrutiny of 156,424 prescriptions selected from various areas out of over three million written during the year 1913, it was found that insurance practitioners throughout Scotland had, as a rule, selected the most modern drugs and those of best repute, denying to their insured patients no medicines usually available in private practice. Prescription frequency was one of the respects in which methods of prescribing revealed variety. It is suggested that high prescription frequency, where it was known to exist, might usefully form the subject of a conference between the insurance and panel committees. A similar difference was found to obtain as regards the price of prescriptions. In several areas an investigation was made with a view of discovering whether high charges against the drug fund, and so far as due to prescribing customs, were the result of methods followed in the area by the practitioners as a whole, or were due to the procedure of a section of the profession, or of individual practitioners. In the view of the Commission's reporter, it was a minority of the profession in any area who run up a drug bill beyond the expected limits. A few instances are given of extravagant prescribing, but it is pointed out that expense by itself should never be a bar to the supply of a drug under national insurance, but, in order that the insured person might receive proper and sufficient medicines, restrictions must be imposed on improper or excessive prescribing. Here again such insurance and panel committees might confer in the matters. Unscheduled appliances had been ordered, but if supplied these should not be paid for by an insurance committee. Consideration of the prescriptions investigated indicated a certain amount of overlapping between medical and sanatorium benefits. The result was that the drug fund would be called upon to bear a burden from which it should be immune, and the general tendency to shortage would be accentuated. With regard to the present shortage of drugs, owing to the war, it is stated that it is impossible to foresee its duration at the present juncture. It is essential, therefore, that all existing stocks of remedies for disease should, as far as possible, be husbanded by reserving drugs in which there was a shortage for cases to whose treatment they were indispensable, and endeavouring to provide for the needs of others by other remedies of similar action, as has been recently suggested to practitioners in a private memorandum from the Home Office. The Commission are confident that the medical profession in the country will in this, as in other matters, prove equal to the exigencies of the time, and they suggest that insurance committees for their part should, as far as possible, co-operate with panel committees in the adoption of any recommendations or other measures which might seem likely to prove of service.

The War and the Race.

Speculation has been rife about the geographical, political and economic results of the war. Its effects upon the *personnel* of the race has not yet been seriously touched on. The main view is a simple and a seemingly obvious one. Many vigorous men in the prime of life, the pick of the nation, will die on the battlefield of Europe. England will suffer more than her Allies and enemies because her army is composed of volunteers. Her best men are going, whereas in other countries all sorts and conditions of men are on active service. The rest of the world loses a certain proportion of its average manhood. England loses the flower of her folk. The shortage of potential fathers will tell on the next generation, influencing unfavourably its quality and perhaps its quantity. We are not at all sure that this reasoning is right. Of course, the rule of the survival of the fittest hardly applies. In a modern battle carried out largely at long range the shells of the enemy exert no specially eugenic selection. And, anyway, the doctrine applied to battle would only show that those fittest for battle survived, and constant warfare is not the normal state of the average European even in these times. We can give no accurate solution to these speculations. If we make the attempt we are uttering statements without a standard. There is no evidence that the best fighting man is necessarily the best citizen in the time of peace, nor the most likely to be the father of supermen. Any evidence we have is rather in the other direction. Many of the highest military qualities are incompatible with the hum-drum toilings of our office-bound cities. So we need not yet despair of the next generation. It will be able to look after itself. One thing we must do. Infant life, which should always be held precious, has now considerably appreciated in value as an asset of the State. No effort nor expense must be spared to save the lives of the little ones. We depend on posterity, and we must do our best to help it.

The Smoke of the Sacrifice.

King David once remarked that Zion was a fair place and the joy of the whole earth. There is another Zion—in the State of Illinois, where Chicago comes from—whose fairness or otherwise we are happily not competent to discuss, but which is doing very well in its efforts to fulfil the latter part of the Psalmist's statement. The municipality of this City with the Hopeful Name one fine day passed a neat and comprehensive law. It decreed that "no person was to smoke tobacco in any form, or to have in his possession any lighted pipe, cigar or cigarette, in or on any street, alley, avenue, boulevard, park, parkway, public passageway, depôt, depôt platform, depôt grounds, hospice, hotel, store, post-office, or other public building or public place within the city." To enjoy the weed in Zion (Ill.) one must take snuff, chew, or hire a balloon. It was a great idea. A city with a name like that must try to live up to it. Zion rose to the occasion. The law, adamant and iron-bound like unto those of the Medes and Persians, was passed. Zion hoped to breathe and enjoy physically and morally an atmosphere of unexampled purity. All was going well until someone went and appealed against the law. Some Philistine, regardless alike of Zion's reputation and his own real good, approached the Supreme Court of Illinois, and suggested that the ordinance was unconstitutional—that it was an unreasonable interference with the private rights of the citizen, and things of that sort. We wonder that anyone should dare to make such implications against the ordinances of a democracy so truly free and representative as an American municipality. Yet it was so. Worse was to follow. The appeal was upheld. The carefully drafted regulations were not evaded—they were simply knocked out, and henceforth voices of praise and volumes of cigarette smoke rise mingled from the streets of Zion. Yet the municipality must not despair. They have done their worst—at least, we hope so. They will not be forgotten. The story of their effort will ring down the ages. Nothing is so hard to live down as a good reputation.

Enemata of Salicylates in Rheumatic Fever.

The power of the rectal mucous membrane to absorb not only food substances, but also various medicaments, has, during the last few years been utilised in practical therapeutics. The rectal administration of salvarsan has been found to be as successful as when given by the intravenous route, and there can hardly be any question as to which is the safer method. An interesting report of one hundred cases of acute rheumatism treated by salicylic enemata has been published by Dr. Louis G. Heyn (*a*), of the Cincinnati General Hospital, and his results must be admitted to be excellent. The *technique* is simple, and consists of a preparatory soap enema, followed by one of 8 to 10 gm. of sodium salicylate given through a rectal tube which is inserted six to eight inches. The salt is dissolved in 120 to 180 c.c. of plain or starched water with the addition of 1 to 1.5 gm. of tincture of opium. The dose is given once daily, though occasionally it may be repeated in twelve hours. Only quite rarely is the rectum intolerant of the drug, and symptoms of salicylism do not often appear. The salicylate is readily absorbed, appearing in the urine within thirty minutes after the injection. Pain is quickly relieved, the temperature falls, and the course of the disease is favourably influenced. Th development of endocarditis is said to be less frequent when salicylates are administered by the rectum than when given by the mouth. At any rate, the method has the advantage of simplicity, and it may be recommended for further trial by clinicians in this country.

Sinistry.

Some of our most progressive schools have long tried to make their unfortunate pupils ambidextrous. The poor little children have been made to perpetrate attempts at bimanual symmetry on blackboards and similarly to write, plait, weave and do gymnastics with one hand as with the other. We are now told that all this left-handed labour is lost. So far most of us have assumed that a trained left hand must be better than an untrained one and have never troubled to find out if the game was really worth the candle. We thought, with a considerable degree of satisfaction, of how useful it would be for a boy who lost his right hand to be able to write with his left, and never realised that it is not the habit of the majority of people to lose any hand at all. To inculcate left-handedness as a prophylactic is comparable to going through a course of hopping to provide for possible injury to a leg. The only other use for a left hand is as an assistant for the right, and the left hand is quite an efficient helper as it is. It is found, moreover, that if the left hand tries to do too much the efficiency of the right hand is impaired. If half the time set apart for writing lessons is devoted to the left hand the child's best writing is much inferior to what its right hand alone would have produced. No preference for the left hand can ever be developed; and, further, the children dislike the left-handed work and become worried and nervous over it, with the result that they are hindered rather than helped by the interference with their natural tendencies. The old rule, "Let not your right hand know what your left hand doeth," has a physical application. The child should be taught to do things and should not be bothered about which hand he uses. If he is to draw, it does not matter whether he holds the pencil in his right hand, his left hand, or his foot. Ambidextrous attempts are unsuccessful as far as results go, and those who have tried them consider that their advantages stand in no relation to the expenditure of time, pains, or patience.

The Sick and Wounded.

The Order of St. John of Jerusalem is rendering considerable assistance in the matter of supplying surgeons to help in the care of the sick and wounded on the Continent of Europe. The Chief Surgeon of the Brigade, Mr. Edmund Owen, and Mr. H. T. Watson, have particular charge of this branch of the work of the Order, and they are anxious to receive further applications from medical men willing to help. The address of the Order is St. John's Gate, Clerkenwell, London, E.C.

PERSONAL.

Dr. Kenrick S. Wise, Government Medical Officer, British Guiana, has been appointed a member of the Executive Council of British Guiana.

Sir Dyce Duckworth, M.D., F.R.C.P., will deliver the first Hunterian Society's lecture on October 14th, at 9 p.m., on "The Patient and the Disease."

Mr. Arthur E. Barker, F.R.C.S., will deliver the Lettsomian Lectures before the Medical Society of London on February 1st and 15th, and March 15th, 1915.

Mr. Owen Richards, F.R.C.S., a well-known Surgeon of Cairo, has left for the front, accompanied by his wife, who previously to her marriage was head of the nursing staff of the Anglo-American Hospital.

Sir John Bland-Sutton, F.R.C.S., President of the Medical Society of London, will deliver the introductory address at the Society's Rooms, 11 Chandos Street, Cavendish Square, W., on October 12, at 8.30 p.m.

Dr. G. G. Nasmith, Director of Laboratories for Toronto, will accompany the Canadian troops to the front, and is at present training a class of 150 men, chiefly medical officers, in water analysis, with a view to the prevention of typhoid fever.

(*a*) *Journ. Amer. Med. Assoc.*, Sept. 19th, 1914.

CLINICAL LECTURE

ON

HERPES. (*a*)

By W. ESSEX WYNTER, M.D., F.R.C.P.,

Physician, Middlesex Hospital.

GENTLEMEN,—I thought we might consider to-day a well-distributed disease with which you are all familiar, and yet one which is not actually common; what we call herpes, or, more popularly, shingles. It is worth some little consideration, because the cases vary so very widely in character and I think there is a certain amount of confusion due to the term covering so many different conditions.

I want to put aside one condition clearly from the rest, and that is catarrhal herpes; I do so because I do not consider it to be herpes at all in the sense in which we consider neural herpes. The reasons for this separation will be, I think, perfectly obvious to all of you. First of all, it is similar in being a vesicular eruption; and that is the only similarity that exists. It is peculiar in occurring around the various orifices of the body; there are instances of these groups of vesicles appearing round all the orifices, not, of course, at one time in one patient. Recently I had a patient with a most pronounced vesicular eruption over both ears; they were very fine vesicles, almost like miliaria, and in a day or two they contained a buffy exudate, so that the whole of the pinna on both sides was covered with these minute vesicles. The patient told me that on more than one occasion he had had a similar eruption, unaccompanied by any serious symptoms—pain, or fever, or anything of that sort. And this attack cleared up, as previous ones had done.

I would first mention, as an argument against it being regarded as herpes in the ordinary sense, that it is specially recurrent; patients having had it once may have it again many times, whereas it is a peculiarity of true neural herpes that it very rarely occurs more than once in the same person. Again, the vesicles do not correspond truly to the course of any particular nerve. In the patients who have pneumonia, it is said that this occurs more often on the affected side: if the pneumonia is right-sided, the herpes is more likely to be on the right side of the face. But I do not know that this is a constant feature. Another important point which separates it from neural herpes is, that there is no antecedent pain of smarting or neuralgia, neither is there any subsequent neuralgia. Nerve pain, both before and after the attack, is a constant feature in neural herpes. Another very distinctive feature is that this facial herpes—and it most commonly occurs on the face—is not followed by scarring, whereas neural herpes leaves a deep scar which is permanent throughout life.

There is one point of interest which I would like to bring before you, and which I have only realised recently, namely, that in at least two cases of pneumonia accompanied by catarrhal herpes, in which I got the cases early enough to obtain recent fluid from the vesicles, I was able to recognise the diplococcus pneumoniæ in the vesicles of catarrhal herpes. That may be a matter of more than mere interest; it may be of real value in other conditions, because we find that this catarrhal herpes is associated commonly with various forms of catarrh, and it may be possible to identify that particular organism by examining the vesicles. Again, it is sometimes a feature of cerebro-spinal meningitis, and I think that, that being a somewhat unusual disease, and obscure at the commencement, the discovery of a meningococcus, if that were possible, in these vesicles would be a great aid to diagnosis.

Of the neural form of herpes, we have, I think, two distinct groups, and this is the point I want to insist upon most. There is, first of all, an ordinary light form of zona, a herpes affecting the trunk, and 75 per cent. of these cases occur in children under 14, so that it is really an infantile complaint, similar to measles or varicella. And these ordinary attacks of zona become very much rarer in adult life, although they occur then, and are sometimes severe. In children, generally, the effects are very slight. I think we must conclude that the person does feel ill, because I know one instance of a little girl who appeared in her mother's room one morning with the announcement that she had come there to die, and that was on the discovery of an outbreak of herpes, and probably her feelings were influenced by the manifestation which she could see. But usually in children the number of vesicles is comparatively small. The distribution of them is of considerable interest, as regards the pathology of the disease, because, in the first place, it is practically always unilateral. If more than one nerve is involved, the other involved nerve is either above or below, on the same side, or at a different level on the other side. So that the old-fashioned popular notion that in a case of shingles if the eruption meets in the middle line the patient will die, is somewhat akin to the problem propounded to Sir Bourdon Sanderson by a lady, as to why, if you hold a guinea-pig up by its tail its eyes drop out. The truth is that it never does happen, and there is, therefore, nothing in the malign prophecy.

The complaint generally attracts little attention until the vesicles appear; they are usually preceded by some erythema. I have noticed in adults, where there has been a severe attack, that the erythema, instead of being a bright pink colour, as is common in other cases, reminds one more of the colour of raw meat; there is a bluish tint about it, and it has a darker colour than that of ordinary pink erythema. Under these circumstances the rash is generally very profuse.

Statistics show that 75 per cent. of cases of intercostal herpes are in young people below the age of puberty; and I have never seen, in my own

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(*a*) Delivered at the Medical Graduates' College and Polyclinic, on Thursday, July 23rd, 1914.

experience, any other distribution of herpes in young children. There is a point in pathology which I will mention presently, which has an important bearing on this in relation to the severity of the attacks.

In adults the ordinary zona is comparatively rare; but the attacks which do occur involve the large ganglia. Those which I have been speaking of occur in the small ganglia, of the posterior nerve root. In adults the large ganglia affected involve the nerves to the arm and the leg, the neck, and the branches of the fifth nerve with the Gasserian ganglion. Undoubtedly one of the most serious types of adult herpes and—only occurring in the adult—is herpes ophthalmicus, an attack which involves the superior division of the fifth. That is serious partly on account of the suffering it causes, before and for a long time after the outbreak of the vesicles, the serious scarring which ensues, causing in many cases disfigurement, but, above all, on account of the involvement of the eye in the subsequent changes. And there are two points which I want to refer to in connection with that. I think it is an accepted statement in medicine that the eye is only involved when the nasal branch of the ophthalmic division is affected, as shown by the occurrence of vesicles on the side of the nose. But that, I feel sure, is not the complete truth. I have seen cases in which there has been no evidence whatever on the side of the nose, yet in which the eye has been quite seriously affected. That is one of the misstatements which it is advisable to correct.

There is another thing which is not familiar to everyone, and that is that the eye is always affected considerably later than the skin. The eruption is always self-limited from the first; it comes out in the course of one or two days, but vesication is limited to the area originally marked out by the neuralgia: it does not come out indefinitely; it comes out for one or two days, and then ceases, and the patient begins to mend. Anyone seeing such a case might be inclined to congratulate the patient and himself that the eye will not be involved. But that would be a little too previous, because the affection of the eye occurs a fortnight after the appearance of the rash on the skin. The explanation of that, perhaps, is somewhat difficult to find. Of course, it is conceivable—and I think the probable explanation is—that the original lesion is in the Gasserian ganglion, and that a second lesion involves, by degeneration, the ciliary ganglion, which takes some days; degenerative processes take ten days before they appear. So the delay in the affection of the eye is probably due to the lapse of these ten days for the degenerative process to spread along the nerves distributed to the eyeball itself. There is also the consideration that the parts which are affected in this complaint are avascular, and are supplied by infiltration, and that may supply a further cause. I think the main cause, however, is due to the ten days which are required for the degenerative process to become established.

The other parts which are liable to be affected in adults, of which I have seen examples, are, first of all, the upper cervical ganglia; and it is an exceptional circumstance with regard to herpes that usually two or three—the second, third and fourth—cervical ganglia may be affected, whereas in the ordinary zona it is very rare for more than one to be involved. These, apparently, are linked together more intimately. I am familiar, also, with one instance in which a lady, as a girl, had an ordinary attack of zona, and towards the end of middle life she had a serious attack of cervical herpes. One knows that in specific fevers a patient may have scarlet fever or measles, and, long after, another attack, the protective power seeming to cease after a while. Or it may possibly be that these later attacks of severe herpes affecting the large nerves are different in some respects to those occurring in children and affecting the small nerves. Occasionally the eruption extends below the elbow or below the knee: I have seen instances of both, apparently independent of any primary disease of the spine. They constitute very serious illnesses indeed; the patients are incapacitated for quite six months; there is loss of power in the limb, due, apparently, to inhibition resulting from pain, because there is no definite evidence of interference with motor tracts. But the pain and weakness are sufficient to render the arm or leg useless for months.

When one considers the pathology of this disease—and there have been very useful investigations made in connection with it—one sees the explanation of its variability, and some of the peculiarities of its distribution. The changes have been very carefully traced. I have here Head and Campbell's book on herpes; they made *post-mortems* on a number of cases in which death occurred from other causes at varying dates after the attacks. And they found that this epidemic herpes, the neural form, is associated with an acute inflammatory exudation, with small round cells in the corresponding root ganglia, with very definite extravasations of blood, and a corresponding destruction of ganglion cells and fibres, this being associated with inflammation and thickening of the sheath, both of the ganglion and of the involved nerves. After a period of ten days, it is possible to trace degeneration both in the posterior root towards the spine and in the ascending posterior column, and further degeneration forward along the correspondng nerves, right up to their termination. Those changes have been constantly found in the cases investigated. With damaging lesions of that sort, of course, it seems hopeless to contend; but if we were fortunate to catch the herpes in the early stage, when the neuralgia along a particular nerve indicated what was coming, by giving drugs such as aspirin, it struck me we might control the severity of the attack. I think that has not hitherto been done at all. During the eruptive period you can do nothing but keep the parts dry by dusting with some drying powder containing a little anæsthetic, and protect it from friction. But in the after period there is such pain that morphia has to be resorted to in most cases for a long time. There is one drug from which I have found great relief in these painful periods, and that is chlorotone. I have also used it extensively in other complaints, and am much impressed by its powerful sedative nerve effect. I give 5 grains. And although it seems contrary to what one would expect in an organic lesion of this kind, benefit is derived from applying local anæsthetics to the affected area; and either peppermint oil or menthol is effective in relieving the burning and tingling which persist for so many weeks after attacks of herpes.

I will now turn to consider some points in pathology. Head and Campbell, in their investigation, say "Now if any posterior root ganglion is carefully examined, it will be found to contain two main groups of cells: large, coarsely granular nerve cells, and smaller or pear-shaped cells which stain with methylene blue in a more uniform manner. But the proportion of these two types of cell in any one ganglion varies according to its position. Thus, the sixth, seventh, and eighth cervical contain a much larger proportion of large cells than of small ones, while from the third dorsal to the first lumbar—that is the range of the ordinary light form of zona—the small cells preponderate; and in the second, third and fourth cervical there is a great preponderance of small cells over large." They add that in the 392 cases analysed the third and fourth cervical, the second dorsal to the second lumbar included all except 30. So you see there is a decided preference shown by herpes to attack the trunk and the ganglion corresponding which have a preponderating number of small cells. The ganglia which receive fibres from the limbs show a preponderance of the cells of the large coarsely granular type. These give rise to the long fibres in the posterior columns in the cervical region, the postero-internal column being formed from fibres from the leg area; the postero-external by those from the arm. Thus it would appear that the toxic agent which causes herpes zoster not only affects the posterior root ganglia, but more particularly those which contain a preponderance of the smaller type of ganglion cells, and give rise to the shorter fibres in the posterior columns, though all the cells in the ganglion are involved. The small cells probably subserve the function of pain connected with the sympathetic chain and the viscera. I think that anatomical discovery helps us to understand the difference, or shows the line of demarcation between the lighter forms of zona which are so common in children and the severe kinds which affect adults; for you will see from what I have read that it is the large ganglion cells which preponderate in the lower cervical, affecting the arm and lower limb, and in the Gasserian ganglion, affecting the forehead and eye. It is where those are affected that the results are so severe.

Thus you see there are three distinct types of herpes, if we are going to include the catarrhal. The catarrhal is the lightest of all, without any constitutional effects; the zona with trifling effects, occurring in children; and the herpes of the larger ganglia, involving the limbs and forehead, which occur mostly in adults, and sometimes in the aged. The severe type is associated with fulminating lesions of the corresponding ganglia, associated with hæmorrhages and vascular changes, all developing in the course of two or three days.

There are other types of herpes which are occasionally met with as secondary to other diseases. One meets with herpes as a normal complication, though not very common, both in ataxia, and in general paralysis of the insane. Again, it occurs in the course of myelitis, and in cerebro-spinal meningitis, not only the catarrhal form of the condition, but the neural. It also occurs in association with the degeneration of vessels met with in arterio-sclerosis, in connection with spinal caries, and occasionally in necrosis of rib. It has been met with in connection with injuries of superficial nerves and injuries to the spinal column.

The curious points in connection with this secondary herpes are, first, that they are not fulminating, in the same sense that the others are, and that the vesicles come out over an extended period of time, two or three weeks at least; and that on examination of the affected ganglion one finds evidence rather of degeneration than of any acute lesion; *i.e.*, there are no hæmorrhages, there is no vascular dilatation, and there is very little cell diffusion. The changes found are what are known as chromolysis; changes in the appearance of the ganglia, and there are evidences of slow degeneration. So that secondary herpes is different in its pathology, and is apparently due to interference with the blood supply in the direction of reduction, and not to any acute specific infection.

In addition to the secondary forms, there are certain toxic forms, which are different, in being more nearly symmetrical, such as those associated with arsenic, with carbonic oxide poisoning, and sometimes with extreme mental emotions.

As to the actual ætiology of herpes, we have no absolute proof, but from a consideration of its epidemic occurrence—it occurs in groups in particular districts and at certain times, especially in the spring—from the fact that patients rarely suffer from a second attack, and the fact that in the cases examined no ordinary bacteria have been found, we are led to the belief that it is an acute specific disease. And Head and Campbell have—and I think very appropriately—compared it with infantile paralysis, which also has an epidemic distribution and a periodic one and is limited to one attack; and both the diseases are far more prevalent in children than in adults. That, perhaps, is not particularly comforting, because we have no means of warding off these epidemic diseases. The fact that the disease is not communicable from one to another is not a serious objection to this view, because this is recognised also in many others.

I think I have mentioned what are the particular points in treatment: the use of local anæsthesia, the employment of chlorotone, in the more painful period, for that is preferable to morphia.

Only one thing remains, and that is to warn you against possible confusion of herpes ophthalmicus with erysipelas. That warning is by no means unnecessary. Of course, the classical descriptions and your experience show you how completely one-sided herpes is as compared with erysipelas, but it is severe enough to produce considerable swelling, so that it may raise the skin $\frac{1}{4}$ inch, with œdema sufficient to produce a complete closure of the eye by effusion into the lid. Whether the nerve influence extends beyond the middle line or not, certainly œdema does. I have recently seen a case in which, in the course of a couple of days, both eyes were completely closed by swelling of the lids and œdema of the forehead, which had commenced on one side, and had extended to the outer limit of the other eyebrow. The vesicles are smaller, as a rule, in herpes than in eyrsipelas, but it is not unusual for them to run together in places, and they are very unequal in size; some may be large enough to resemble erysipelas. If the lesions become hæmorrhagic, as sometimes happens, there is a close resemblance to erysipelas, and there is a degree of fever attending the herpes. But I admit that the general symptoms are not severe enough for true erysipelas There is no vomiting, the temperature is rarely raised above 100 deg., and the patient may not be ill enough to be confined to bed. But it is possible, especially on seeing one's first case, in which œdema is very marked, and where it extends to the opposite side, to confuse this condition with erysipelas.

I think one of the most important points to remember is what I said concerning the late involvement of the eye; that always occurs a fortnight after the initial lesion, and, unfortunately, the limit of it is unknown. I know of one instance now in which the trouble in the eye has lasted ten years after the original attack of herpes, and we are all familiar with instances in which the sight has been completely lost by disorganisation of the eye within a few weeks of the initial lesion.

The main treatment in connection with the eye you are familiar with, but it is well to commence as early as possible to instil atropine so as to control the circulation, and rest the iris, and so help the recovery of the cornea. Atropine is about the only drug which in any way affects the course of the disease, and if it is begun early you can prevent adhesion of the iris and persistence of the ulceration, and ensure complete recovery of the eye, which is affected only in its tunics, and not in any way as regards its receptive function; so that there is no need for anxiety from the point of view of loss in the retina, or in the optic nerve; and if you can save the structures in the front of the eye, you can preserve the patient's sight.

NOTE.—*A Clinical Lecture by a well-known teacher appears in each number of this Journal. The lecture for next week will be by H. Crichton Miller, M.A., M.D. Subject: "The Practical Treatment of Insomnia."*

ORIGINAL PAPERS.

THE MEANS OF TESTING THE RENAL FUNCTION.

By PROFESSOR WIDAL,

Professor at the Faculty of Medicine of Paris, Physician to the Cochin Hospital.

[SPECIALLY REPORTED FOR THIS JOURNAL.]

NOWADAYS we know how to ascertain with certainty the indication and the degree of renal retention—chloruræmia and azotæmia. We are aware also that in the genesis of Bright's disease we must reckon with the blood pressure. Our methods of investigation have *pari passu* gained in precision and in simplicity. I propose to lay before you the methods of investigation which I employ in all renal cases, in order to determine the state of the kidney function.

First of all, there are certain data to be obtained by examination of the urine—the quantitative test for albumin, the recognition of granular casts indicative of grave changes in the renal epithelium, the search for red corpuscles and leucocytes pointing to renal hæmorrhage and diapedic congestion.

What we require to know more than anything else, however, is the state of the renal function, the blood pressure, retention of chlorides, the existence of azotæmia. We have at our disposal various apparatus for the purpose of ascertaining the degree of arterial tension with more accuracy than was formerly attainable, and we can follow its course throughout. The existence of chloruræmia is plainly indicated by the presence of œdema, and should this be absent there are two means of ascertaining the reality and the degree of chloride retention—*viz.*, the alimentary salt test and daily weighing.

The alimentary chloride test consists in drawing up the balance-sheet of the salt ingested and that excreted. This test is only trustworthy when followed up for several consecutive days, and I cannot too strongly insist upon the fact that the estimate of chlorides in the urine is of value only so far as it is considered in contrast with the amount taken into the body.

To know exactly the amount of chlorides ingested we must distinguish between cases on strict milk diet, those on a saltless diet and persons on ordinary salt-containing diet. With milk diet it suffices for us to ascertain how much milk is being taken to calculate the amount of salt taken. On a saltless diet we know that the maintenance ration comprises about one and a half gramme of natural chlorides, so this may be taken as an average. Lastly, if the patient is on ordinary diet it is indispensable for him to weigh the exact amount of salt that he adds to his food in cooking and otherwise. He should employ chemically pure salt, because ordinary salt contains ten or fifteen per cent. of water and various impurities. Suppose he uses five grammes of salt for cooking, if we add the 1.50 gramme contained in the food substances this gives us a total of 6.50 grammes of ingested salt.

It is indispensable to collect the total urine for the 24 hours or we may fall into grave error. The proportion of salt per litre is of no value whatever. The collection should always start at a fixed hour, preferably on waking in the morning on account of the interval that has elapsed since the last meal. A quantitative daily analysis of the chlorides, carried out under these conditions, will reveal exactly the degree of chloride retention. This is the only quantitative test that is required, the phosphates, sulphates and uric acid not presenting any particular interest in renal cases and the same remark applies to the estimate of urea in the urine and its relationship to the total nitrogen.

These calculations are easier to work out in hospital than in private practice, but there is a much simpler plan, based on the daily weight of the patient, a method which should always be employed in every case of Bright's disease with œdema. All we have to do is to see that the patient is always weighed at exactly the same hour, in the same clothes, at a time as far removed as possible from a meal, on waking, for instance, and after emptying the bladder and rectum.

With a patient who is on a diet the chloride content of which we know the weight curve will show with sufficient accuracy whether the salt ingested is, or is not, excreted, and it enables us to determine the hydration consequent upon chloride retention. It is well to bear in mind that an increase of weight of one kilogramme corresponds approximately to the retention of between five and six grammes of salt.

The weighing machine is, therefore, an indispensable clinical accessory and is practically sufficient for us to be able to determine the proper diet for persons who are œdematous or threaten to become so.

Azotæmia.—This ought to be ascertained in every renal case, and none should accept the responsibility of treating such a case before he has ascertained the existence or absence of nitrogen retention. It is better to base our estimate directly on the richness of the blood in urea, because urinary analysis tells us nothing as to this. In spite of pathological accumulation of urea in the blood the urinary elimination of this substance may seem to be adequate, and a regulating mechanism ensures the excretion of an amount of urea roughly corresponding to the amount of albumenoids ingested.

For this purpose we require from 20 to 30 c.c. of blood, which can easily be obtained by means of wet cupping, a method of treatment which we are always at liberty to employ, and it is easy enough to ascertain the proportion of urea contained in the serum. This is how we estimate the urea in the serum in my wards:—10 c.c. of serum is mixed with 115 c.c. of alcohol at 90°, when a white precipitate of albumenoids is thrown down. The mixture is shaken for some minutes, then thrown on a filter. The first 100 c.c. is collected and this corresponds to 8 c.c. of serum. This is warmed over a water bath until all the alcohol has evaporated, but short of complete desiccation. The residue is treated with a small quantity of distilled water, in such amount that the whole does not exceed from six to eight cubic centimetres, and this is treated with hypobromite in Yvon's apparatus over a mercury bath. Then we read off the graduated index. Various other procedures have been suggested for this self-same purpose. Dr. Moog suggests precipitating the albumenoids with trichloracetic acid. Drs. Ombard and Hallion have devised an ingenious arrangement which enables us to read off the result without passing by the mercury bath, an advantage in sparsely equipped laboratories. My pupils, Andhe, Weill and Laudat, find that the results by these two processes closely approximate, so that in practice any one of them can be employed.

I only estimate the urea in the blood serum. In my daily practice I find that this is sufficient to inform me of the existence and the degree of the azotæmia and at the same time it enables us to formulate, at any rate, an approximate prognosis.

When the ratio oscillates between 50 c.g. and a gramme the prognosis is not immediately fatal, but when between one and two grammes it is rare for the subject to survive more than a year. The course is still more rapid when the ratio is between two and three grammes, it is then merely a question of months or perhaps weeks. Figures above three grammes are only met with in the ultimate stages of the disease and when met with indicate a fatal termination in the immediate future.

Thus, as you see, by very simple means: the sphygmomanometer, the alimentary chloride test or the weight test and the estimate of the proportion of urea in the blood, the physician is in a position to compile as complete a balance-sheet of the renal function as it is possible to obtain in the present state of our knowledge. It will enable him to label each case with a correct diagnosis and prognosis. In future it will not be sufficient in a case of Bright's disease to diagnose acute or chronic nephritis, to try and define the anatomical variety, interstitial or parenchymatous; to establish a toxic or infective origin. The diagnosis requires to be completed by specifying, whether the form is monosyndromic or polysyndromic, stating also whether the syndromes of chloruræmia, azotæmia or hypertension exist separately or, on the contrary, are associated. In this way, by dissociating from the multiple symptoms that may accompany nephritis, the part due to disturbance of this or that renal function we can establish the rational bases of prognosis and treatment in a given case of Bright's disease.

Major W. H. G. H. Best, R.A.M.C. (Special Reserve), P.M.O., Southern Provinces, Nigeria, has been appointed an official member of the Legislative Council of the Colony of Nigeria.

THE PREPARATION OF A SUBJECT FOR OPERATION.

By D. CANNONNE, M.D.,

Assistant Surgeon at the St. Martin-la-Foret Clinic.

[Specially Reported for this Journal.]

A man comes to us suffering from an affection amenable to surgical measures. Under what conditions shall we be justified in intervening and what precautions ought we to take in view of such intervention? These are the questions which I propose to discuss with you to-day.

Thanks to the progress that has been accomplished in the sterilisation of instruments, operator's hands and operative field, no patient should ever succumb nowadays to the operation as such. Most operations have now been thoroughly worked out and the *technique* so far simplified that the modern surgeon can proceed more rapidly and do better than his predecessors. Then, too, the introduction of perfected instruments for the induction of general anæsthesia goes far to limit the risks under this head.

Seeing, then, that the subject is no longer exposed to death from sepsis, secondary hæmorrhage or other grave accident due to defective *technique*, nor from the anæsthetic, what are the causes of death when, in spite of these advantages, the subject succumbs?

Almost invariably death is due to complications dependent upon the patient's general health, that is to say, consequent upon functional insufficiency of one or more of the vital organs. It follows that it behoves us to ascertain the patient's resistance as exactly as we can, in order to make sure that he is in a state to support the shock of the intervention. The latter varies, of course, with the nature of the operation, but it usually comprises the following elements: (1) nervous disturbances, especially likely to supervene in emotional persons as the result of apprehension, partly of the operation and especially, it would seem, of anæsthesia, while after the operation, organic depression from pain; (2) intoxication by the anæsthetic; (3) suppression of the functions of assimilation and disassimilation during the first few hours after the operation consequent upon immobility, deprivation of food, slowing down of the intestinal and urinary functions. This stage is especially dangerous for the cachectic.

In order to estimate the resistance of the patient in respect of these various factors of disorganisation we must enquire into the influence of temperament, habits of life and previous illnesses. Each apparatus and organ must be investigated from the point of view of function. A systematic examination enables us to arrive at a practical conclusion and may even reveal possible errors in the surgical diagnosis.

A patient suffering from obstinate vomiting is sent to us with the diagnosis of pyloric stenosis whereas close examination of the reflexes shows that the gastric crises are due to a lesion of the spinal cord. Another comes in to be operated upon for an umbilical hernia, the rapid development of which has greatly surprised the friends, and on examination we find that there is copious ascites of hepatic origin. The hernia becomes of secondary importance, being in fact an accident in the course of a purely medical affection.

To begin with, we shall note the general aspect of the patient, his facies, his emaciation or corpulence. Mere cachexia is not *per se* a contra-indication unless due to cancer; on the contrary it is an urgent indication when it is dependent on an affection amenable to surgical measures. A patient suffering from old-standing fibroid, profoundly anæmic from repeated hæmorrhages, will soon rally once the fibroid has been removed. Some subjects suffering from a benign gastric affection, especially pyloric stenosis, consequent upon chronic ulcers, come to us in a lamentable state of cachexia which at first sight seems to forbid any intervention, yet gastro-enterostomy effects quasi-resurrections. It is true that in these cases general anæsthesia is, as a rule, avoided, and in all probability is a condition of success, seeing that of 45 gastro-enterostomies performed by Dr. Monprofit without anæsthesia on cachetic subjects not a single one proved fatal.

Excessive corpulence, on the other hand, may constitute an absolute contra-indication except it be a case of surgical emergency. As far as possible it is well to abstain from any abdominal operation, even of the least severe kind, in the obese. Not only is the operation rendered far more difficult in consequence of the thickness of the walls, but these subjects are very likely to have fatty degeneration of the myocardium, so that they would ill support prolonged immobility on the back and chloroform intoxication.

The chest will, of course, be carefully overhauled before any kind of operation. As a rule, it is sufficient to make sure that the patient is not suffering from an acute or chronic affection such as emphysema, pulmonary œdema or tuberculosis. Chronic bronchitis is no doubt a great drawback in abdominal operations, especially in gastro-enterostomy, and its existence renders certain precautions necessary. The surgeon will dispense with general anæsthesia if possible, and in any case will use chloroform in preference to ether and the patient will be allowed to sit up on the second or third day in order to facilitate expectoration.

A much more delicate matter is to ascertain the functional activity of the liver and kidneys, especially when we reflect that among the delayed accidents of chloroform are hepatic and renal complications. It has been shown that chloroform is a powerful poison for the liver cell, and cases of "chloroform jaundice" are by no means infrequent. Then, too, in four out of five cases, patients long under chloroform are found to have albuminuria, sometimes even acetonuria and oliguria or anuria, testifying to the existence of toxic nephritis. It follows that the administration of chloroform to a patient whose liver or kidneys are insufficient may lead to fatal complications.

Now examination of the urine will provide exact information as to the state of the hepatic cell. A reduction in the proportion of urea, alimentary glycosuria, urobilinuria and urinary hypertoxicity all point to hepatic insufficiency. Urinary analysis will also enlighten us as to renal permeability.

The presence of albumen in the urine is not necessarily indicative of a renal lesion which would contra-indicate surgical intervention. Apart from so-called physiological albuminuria and the forms of albuminuria dependent upon nervous or circulatory disturbances or blood changes, there are varieties which are directly caused by the tumour and disappear when this is renewed.

I have collected notes of cases in Dr. Monprofit's clinic in which patients with abdominal tumours ceased to be albuminuric after operation. One of them was that of a girl with an ovarian cyst, two others were women with fibroids of moderate dimensions. The history of one of them is especially characteristic. Although her fibroid was of no great size, for three years she had had œdema of the lower limbs and hands, dyspnœa and palpitation. Analysis showed one gramme of albumen per litre of urine. She was thought to have nephritis and after some hesitation Dr. Monprofit decided to intervene and was not a little surprised to find that the albumen had disappeared on the morrow of the operation. The patient recovered without difficulty.

Our examination of the patient is completed by investigation of the circulatory apparatus and in particular of the heart. Experience shows that we need not attach too much importance to valvular lesions when fully compensated. The important point is to ascertain the state of the myocardium. We must make careful search for symptoms of myocarditis and fatty degeneration, and with this object in view any abnormalities of the pulse and the degree of blood pressure will be of great assistance. A pressure below 100 mm. is usually a contra-indication to the administration of chloroform.

In spite of all these precautions it is unfortunately impossible to lay down any hard and fast rules which would enable us to distinguish the good from the bad cases, so that we must still be prepared for an occasional disappointment.

Having decided in favour of an operation the question arises as to the preparation of the patient. If the operation in view is of some gravity, more particularly if it be an abdominal operation, it is well to let the patient pass a few days in the nursing home where the operation is to be performed. This plan presents many advantages. To begin with, it means that the patient is kept under close observation so that we shall be in a better position to form a trustworthy opinion. Then too, the patient has time to become familiar with her surroundings and her mind gets accustomed to the idea of an operation. Lastly it is much easier to prepare the patient for the operation by baths and the disinfection of the operative field.

Of all the preparatory measures, however, unquestionably the most important are diet and purgation. The diet must be such as to disinfect the alimentary canal and favour the elimination of toxins. This is usually effected by milk diet and the administration of aperients. This has for effect to lessen the risk of chloroform poisoning and to reduce the vomiting. It has been remarked that the peristaltic movements which cause abdominal patients so much pain after operation are reduced to a minimum when the intestine is empty.

These, then, are the main lines upon which we must prepare patients for operation. When satisfactorily followed the patient will be in a much more favourable position to resist the shock of the operation and the margin of risk inseparable from any and every surgical intervention will be proportionally diminished.

Col. J. R. Dodd, R.A.M.C., has been selected for appointment as Medical Officer in charge of ankylostomiasis work in Trinidad.

THE SPOROTRICHOSES: WHAT EVERY PRACTITIONER OUGHT TO KNOW.

By H. GOUGEROT, M.D.
Professor Graduate at the Faculty of Medicine of Paris.

[Specially Reported for this Journal.]

The sporotrichoses are mycoses (*i.e.*, diseases due to fungi), caused by parasites called *Sporotrichum*. These are a species of Mucedinea or hyphomycetes to be recognised by rather delicate threads, bearing conidia or external spores. The ovoid, round or pear-shaped spores are either sessile or pedunculated, and may be numerous or scanty. When numerous they may form a sort of sheath round the thread or may be collected at one end in a bunch. There are many varieties of sporotrichum, at least a hundred have been identified, but of this number, as far as we know, only eight are pathogenic to man and animals. The one most frequently met with is the Sporotrichum Beurmanni.

Inoculation takes place through scratches with thorns or with knives used for peeling potatoes, for example, and the ingestion of uncooked vegetables. Contaminated animals may also convey the infection to human beings. Fortunately every inoculation of sporotrichum does not entail sporotrichosis, in fact there must be diminished resistance or other predisposition to enable the parasite to gain a footing.

Nowadays we are entitled to expect every practitioner to be acquainted with the sporotrichoses. Commenting on the frequency of the disease, Professor Landouzy points out that formerly sporotrichosis was mistaken for tuberculosis or syphilis to the detriment of the unhappy victim who, in the absence of proper treatment, went from bad to worse. The moment we recognise the nature of the disease recovery is ensured, since it is readily amenable to iodine, which is a quasi-specific in this class of diseases. Medical literature contains records of numerous cases of erroneous diagnosis in which useless mutilating operations have been performed, simply because the patients were wrongly supposed to be suffering from cancerous or tuberculous affections.

Sporotrichosis may present every possible clinical aspect, for it may attack practically all the tissues: epidermis, dermis, muscles, bones, joints, testicles, kidney, lung, trachea, eye, larynx, pharynx, glands, etc. It may determine all sorts of lesions in these tissues, acute, subacute, or chronic, though the gumma is far and away the commonest form. The practitioner need not be acquainted with all the clinical varieties of sporotrichosis, provided he bear in mind that these mycoses may simulate any affection of skin, bone, muscle, etc. I will briefly enumerate the more frequently met with clinical types:—

(1) Subcutaneous gummata disseminated all over the body varying in number from six to a hundred or more; these may be small and hard, medium and soft, or breaking down with abscess formation. They may be deeply seated, ultimately involving the skin with ulceration.

(2) We may get infiltrating gummata of the skin simulating cancer, warty patches simulating lupus, epidermitis simulating ringworm, blepharitis, osteitis, laryngitis, etc.

(3) A chancre at the site of inoculation, ulcerous, vegetative or warty, or, it may be, in the form of gummatous lymphangitis, involving or not the glands. In some cases the adenitis dominates the scene.

(4) Deep isolated lesions: osteitis, arthritis, synovitis, pyelonephritis, etc.

(5) Isolated lesions of the mucosæ, ulceration of the pharynx simulating tuberculosis, lingual tumefaction simulating cancer, laryngitis, conjunctivitis, ophthalmia, keratitis, etc.

In short the sporotrichum may attack any part of the body and any tissue, so that in all cases suggesting syphilis, tuberculosis or some chronic pyogenous infection it behoves us to bear in mind the possibility of the affection being due to the sporotrichum.

Nothing is easier to diagnose than sporotrichosis, so that it would be inexcusable not to make a practice of eliminating this cause as a routine measure. All we have to do is to cultivate it on glucose-gelose or have recourse to the sero-diagnosis. It is often possible to diagnose the affection clinically on the strength of the following signs, the importance of which I have established in many instances: viz., a large number of lesions or the extreme severity of any one lesion contrasting with the excellent state of the general health. Onset of the lesions in the form of an indurated nodule slowly degenerating into an abscess. Partial, cupuliform softening ulcers, usually narrow, enlarging secondarily. Irregular livid edges almost always undermined, with pockets in which pus accumulates. Contrast between the small area of the ulcer and the extent of breaking-down gumma. The co-existence of several apertures or two contiguous ulcers adjacent to the same gumma and the persistence between the two ulcers of a slender bridge of bluish skin. The pus is viscid or the serous exudation citron yellow. In spite of the persistence of the abscess cicatrisation takes place beneath the thinned skin. The cicatrices are flat, either narrow or wide, supple, with uneven edges often dentated with imperfectly adherent lappets of skin with a brownish halo. Then, too, there is rarely any glandular enlargement. The lesions retrogress under the influence of the iodine treatment, but recur if this treatment be too soon suspended. Lastly, the extraordinary mixture of different lesions: tuberculoid, syphiloid, ecthymatous, etc.

The foregoing features apply especially to cutaneous lesions. In osteitis, synovitis, arthritis, etc., the clinical diagnosis of sporotrichosis is not always practicable; we can only suspect its nature, in which case we have recourse to bacteriological examination by culture or to sero-diagnosis.

Bacteriological Diagnosis.—The simplicity and rapidity of Beurmann and Gougerot's procedure, viz., cultivation in the cold on peptonised glucose-gelose is such that every student and practitioner ought to be familiar with it. No laboratory is required, since no warm chamber or microscope is employed. The tubes are inoculated at the bedside, and the tubes are left at the ambiant temperature. The macroscopical aspect of the culture is sufficient; all that is required is that the observer shall have familiarised himself with the appearance of sporotrichum cultures. The test is as simple as for the detection of sugar and albumin in the urine.

When a microscope is available—no need for the costly immersion lens—the diagnosis can be made earlier by allowing the pus to run down the dry wall of the tube. If familiar with the *technique* of the agglutination test the practitioner can make the diagnosis at once.

The Culture Test.—Paint the skin with tincture of iodine and puncture closed lesions with an ordinary hypodermic needle of fairly large calibre. taking care that it contains (like the syringe) no trace of antiseptic solution. The pus is aspirated into a sterile pipette. Having washed out the abscess cavity with boiled water suck up some of the serum that exudes into another pipette, to be separately inoculated. The culture tube (which can be obtained ready for inoculation) is then carefully inoculated with the pus or serum, by pouring some on to the surface of the peptonised glucose-gelose, flaming the mouth of the culture tube and blocking it with a plug of sterilised cotton. There should be from half to one cubic centimetre of pus in each tube and three tubes should be inoculated in the same way.

The tubes are placed upright so that the pus shall not come into contact with the cotton plug. The rubber cap of the tube should not be replaced in position. They are left at the temperature of the room (which should be reasonably warm) protected against the action of any antiseptic vapour.

Colonies of sporotrichum make their appearance between the fourth and the twelfth day, while at first they soon become brown, and then chocolate colour. They can be recognised by the colour and the wrinkling, like mountains on a relief map or the cerebral convolutions, and by the brownish halo that surrounds them. No one who has once seen a typical sporotrichum culture will have any difficulty in identifying it. No technical knowledge is required beyond this.

In order to arrive at an earlier diagnosis it is open to us to adopt the plan of pouring the pus down the dry walls of the tube, because the colonies are visible under the microscope long before they can be seen by the naked eye, making use of a microscope with a No. 4 objective and a No. 6 eye-piece. On the day when the inoculation is done a big drop of pus is run into the grooves formed by the plane suface of the gelose and the concave surface of the tube and on the glass opposite the gelose. At the close of the second day, without further preparation, the colonies forming in these drops of pus can be seen under the microscope through the wall of the tube. The oblong sporotrichum becomes swollen and germinates towards the walls of the tube; they throw out thread-like prolongations, and after the forty-eighth hour a more or less ramified coroliform star forms. If we can detect these thread-like formations the diagnosis is certain, and this as a rule is easy enough. The tube is placed under the microscope, the platform being inclined at an angle of about 45 degrees so that the condensation of vapour may remain at the bottom of the tube and not moisten the cultures. The tube is fixed in position with putty. In the midst of the leucocytes of the pus we can make out one, two or three straight filaments. This appearance is more characteristic than any smear preparation could be.

As a result of the special war examination at the Royal College of Surgeons of England 122 new members have been admitted.

RECENT RESEARCH ON THE ÆTIOLOGY OF SPRUE.

By P. H. BAHR, M.A., M.D., D.T.M. and H., Cantab.,

London School of Tropical Medicine.

Sprue is an intestinal disease, limited, as far as is at present known, mainly to the tropics and subtropics. It is a diarrhœa in which the stools have certain peculiar and remarkable features: they are very pale in colour, frothy, and of a large size. Concurrently with the diarrhœa, there is a flatulent dyspepsia, producing a characteristic meteorism, especially of the small intestine.

Simultaneously, or consequent to, the onset of the diarrhœa, a peculiar raw and denuded condition of the tongue is noted, which, commencing at the tip and edges, eventually involves the whole organ. Small yellow aphthous ulcers commonly occur from time to time on the dorsum of the tongue, the frænum, and the buccal mucosa, especially at the orifice of Stenson's duct.

These symptoms persisting, gradually lead to an extreme atrophy of the body and to a severe anæmia, resembling in many features the classical pernicious form.

Sprue is an extremely common disease in India, China, Java and Ceylon. Sporadic cases have been reported from the Pacific Islands and South America. In the West Indies and Porto Rico it is fairly common, though it appears to have been inextricably confused with pellagra, in which the terminal symptoms—the raw tongue and frothy diarrhœa—somewhat resemble those of sprue. The records from tropical Africa require confirmation.

It has been asserted that sprue is a disease confined to Europeans, and is really the expression of the effect of the tropical climate on a digestive tract unused to these conditions. I am inclined to think that the result of the researches on which this paper is based, and which were conducted in Ceylon, will go far to combat this idea, and that the disease will be eventually found to obey the law common to other tropical disease of known specific origin—that is to say, the native races of those countries in which the disease is endemic constitute the main source of infection.

I succeeded in finding eleven cases of sprue, about the diagnosis of which there could be little doubt, in natives of Ceylon, though in many cases the difficulty of arriving at a definite opinion was extremely great; ankylostomiasis, malaria, dysentery and diarrhœa are all of such frequent occurrence in natives that the exact *rôle* played by each must be first excluded. It appears to be a certain fact that in Ceylon at least the European cases *per capita* of the population are by far the most numerous, and that the immigrant race is especially liable to contract the infection.

Though the disease, as seen in Europeans, is especially liable to attack those of middle age, this factor in itself is not a bar to infection. I saw one case in a Eurasian boy of thirteen years of age, and I am assured that occasionally it does attack children as well.

Neither temperature, housing, water supply, food, nor the insect fauna, all of which were made the subject of a separate investigation, appear to influence in any way the distribution of the disease in Ceylon, except in so far that an unhealthy environment may predispose to its development by reducing the normal vital resistance to disease. On the other hand, the occurrence of the disease in Ceylon in all classes of the community irrespective of age, sex, or immediate environment, certainly suggests the exposure to the same specific cause, or its direct communication from man to man.

The symptoms of sprue and its manifestations vary so considerably that I concluded that the only satisfactory classification on a clinical basis was the one based upon a hypothesis that the disease process affects the various regions of the alimentary canal to an unequal degree, and thus gives rise to symptoms according as one or other region is specially affected. As typical or complete sprue I included all cases exhibiting two cardinal symptoms—the characteristic tongue and stools; as atypical, or incomplete sprue, a number of cases with typical motions, but with no involvement of the tongue or mouth whatsoever, and a large series of bilious diarrhœas, accompanied by anæmia, emaciation and flatulence, which I regarded as early sprue especially affecting the intestinal tract, and not as instances of the hill diarrhœa of India. Finally, I included as a further sub-division a number of cases, occurring in all races in whom the typical tongue and mouth symptoms are present, though the disease process does not appear to have spread beyond the buccal cavity. I have provisionally named this localised disease "tongue sprue."

The typical colour, or lack of colour, of sprue stools is to be ascribed partly to the farinaceous diet on which the patients are generally fed, partly to a colourless reduction product of hydrobilirubin (called leucourobilin), and partly to the abnormal percentage of contained fat. In addition to this peculiarity, the stools are invariably acid, and contain no traces of any of the pancreatic ferments which are present in the normal stool. The fat absorption—that is to say, the proportion between the amount ingested and the amount excreted in the fæces—varied in my cases from 70 to 90 per cent, whereas in the milk-fed normal subject it stands at about 95 per cent.

All these various characteristics of the sprue stool, their acid reaction, large size, high proportion of ingested fats and carbohydrates, absence of pancreatic ferments, their similarity to those of ascertained pancreatic disease, all indicate either an insufficiency or absence of the pancreatic ferments in sprue.

The urine and the urea excreted per diem is normal in amount. Estimations of the proteid ingested per diem indicate that the urea is of exogenous origin.

Seeing that there are many discrepancies in the descriptions of the morbid anatomy, it is necessary to consider briefly the lesions I found in the two *post mortems* I obtained. The bodies presented all the external appearances of chronic starvation, there was a complete absence of subcutaneous and body fat, all the organs weighed less than half their normal amount. There were no signs of intestinal ulceration, the mucous surface was covered with a layer of viscid and ropy mucus containing great numbers of yeast cells. The œsophagus was encrusted throughout its whole extent by a yellowish, friable, diphtheritic membrane composed entirely of yeasts, which organisms were also cultivated from the liver and from all parts of the intestinal tube.

In the microscopic pathology the most interesting points are the preservation of the columnar epithelium throughout the intestinal canal and the chronic inflammatory changes in the mucous and submucous layers.

In sections of the spleen I found small bodies of an uncertain nature in the endothelial cells of the veins. They are markedly Gram-positive and not acid-fast. They most probably represent some hyaline degenerative change of these cells, which I believe to be characteristic of sprue, as I have failed to find them in other tropical diseases such as ankylostomiasis, malaria, pernicious anæmia, lymphatic and splenomedullary leucocythæmia, kala-azar, trypanosomiasis, amœbic and bacillary dysentery, etc.

These bodies must be distinguished from other Gram-positive, acid-fast bodies, often of a large size, which are also found in sprue tissues; these latter are probably identical with Russell's fuchsine bodies, and also represent some form of hyaline degeneration.

With the exception of yeast cells, I have failed to find any specific organism in sprue tissues. I have, therefore, summed up shortly the evidence in favour of regarding sprue as a blastomycotic infection, as follows:—

(1) Yeast cells and mycelial elements are found intracellularly in scrapings of the tongue lesions at an early stage of the disease, but not at a later stage when acute symptoms have subsided.

(2) Yeasts are the only organisms found in the deeper layers of the tongue in microscopical sections; that the infection is not one of recent date receives support from the chronic inflammatory changes in the corium of the papillæ.

(3) The desquamation of the surface epithelial cells, accompanied by a subacute inflammation of the tongue and of the œsophagus, are lesions such as a study of the mode of growth of the thrush fungus and of its low order of virulence would lead one to expect.

(4) A general infection of the intestinal mucus with yeasts was found in sprue *post mortems*, but not in twenty-six other cases of chronic diarrhœa accompanied by emaciation and anæmia.

(5) The stools of sprue, their frothy and gaseous character, are such as would result in a blastomycotic infection of the intestinal canal.

(6) The relapsing nature, the chronicity and latency of the disease, are compatible with the life history of the blastomyces, their periods of attenuated growth and recrudescence.

(7) There is no evidence in favour of regarding the sprue yeast fungus as being otherwise than identical with the thrush fungus (*Monilia albicans*), an organism possessing a very low pathogenic power, but it is possible that under certain conditions—as, for instance, in the tropics—this power may be augmented. In support of this view, I may say that there are numerous varieties of yeasts employed in brewing beer and in making wine, and the predominance of one variety in certain districts imparts to the wine its characteristic flavour, and which, though differing widely from each other in their powers of fermentation, yet resemble each other minutely in their morphological as well as in their cultural characters. May it not be that their pathogenic, as well as their other properties, are capable of being influenced by external local conditions?

(8) Wasting and anæmia, both symptoms of sprue, can be produced by continuous intravenous injection into rabbits of small doses of broth cultures of a pathogenic yeast; moreover, a degeneration of the hepatic capillary endothelium, apparently similar to that I have described in the sprue spleen, may be produced by these means.

(9) Diarrhœa, atrophy of the lingual papillæ as in sprue, digestive disturbances, and an aphthous ulceration of the mouth are commonly found in infants, the subjects of thrush infection in temperate zones.

(10) It is possible that obscure diseases of the alimentary canal in children in temperate zones, such as Gee's cœliac diarrhœa, are of the same nature as sprue in adults in the tropics. A hypothesis of this sort would explain the occurrence of sporadic cases of sprue in temperate zones.

(11) The local infection of different portions of the digestive tract with this fungus would best explain the varying clinical manifestations of sprue.

(12) To maintain such a hypothesis it is necessary to stipulate for a third factor—a predisposing cause, which may exist in the local climatic conditions, which favour a more precocious and luxuriant growth of all fungi—a matter of common observation to all laboratory workers in the tropics.

To admit that these fungi can produce some of the symptoms of sprue, such as the frothy stools, dyspepsia, etc., and yet not be the cause of the disease, is to my mind not a valid argument. I surmise that under certain circumstances these fungi, though normally non-pathogenic, are capable of assuming a pathogenic *rôle*, as is known to happen in the case of the pneumococcus, the diphtheria bacillus, the Micrococcus catarrhalis, and probably in the case of Entamœba histolytica as well. That they are capable of causing desquamation of the surface stratified epithelium of the lingual papillæ there can be little doubt. In Giemsa-stained specimens the stratified epithelial cells in the immediate vicinity of the penetrating mycelium are vacuolated, obviously degenerated, in some instances altogether destroyed, and the subjacent connective tissue of the corium is laid bare; there is an intense inflammatory reaction in the surrounding tissues, the nuclei of the epithelial cells have undergone chromatolysis, the epithelial layer itself is crowded with leucocytes which are not normally found in this situation, all additional evidence of a reaction on the part of the host to an invasion by the thrush fungus. Exactly the same tissue changes are visible in the œsophagus. There can be little doubt that the thrush fungus in its downward growth is capable of laying bare the taste buds and nerve terminals (as I have actually been able to demonstrate), and of thus evoking those very lesions which the lingual and œsophageal symptoms of sprue suggest are present during life. Finally, as a result of my work, I submit the following conclusions for consideration:—

(1) Sprue is a specific disease of tropical and subtropical countries, though it is possible that cases occasionally originate in temperate zones.

(2) It is a disease prevalent in Ceylon, especially amongst the Europeans; but, contrary to the opinion hitherto held, it may occur also in the native, irrespective of race or mode of life.

(3) This fact, together with the occurrence of the disease in people closely associated, suggests a local influence or some communication of the specific cause from man to man.

(4) Sprue is a variable disease: it may occur as a mild or as a particularly virulent form, and, in common with many other serious diseases, it is sometimes liable to sudden remissions and latent periods.

(5) There is evidence that the disease may occur as distinct and specific clinical forms, according to the portion of the alimentary canal attacked.

(6) Researches on the composition of the stools point either to a complete absence or inefficiency of the intestinal digestive ferments; researches on the blood and urine are in favour of regarding sprue as an alimentary toxæmia.

(7) The pathological results are also in favour of this supposition, and point to an infection of the alimentary canal with the thrush fungus and a consequent absorption of its toxins as being concerned in the production of this toxæmia. The balance of evidence I have collected is, I consider, on the whole, in favour of, rather than opposed to, this view.

OPERATING THEATRES.

ROYAL FREE HOSPITAL.

Hydatids of the Liver.—Mr. Willmott Evans operated on a man, æt 56, who had been admitted for a swelling in the neighbourhood of the liver. For about three months he had had dull aching pain in the right hypochondrium, but had not noticed any perceptible swelling there until about a month before admission to the hospital. The patient's general health was excellent, but the pain was sufficient to induce him to seek treatment. On examination, a swelling was felt and seen at the lower margin of the liver, corresponding to the tenth rib. The swelling was rounded, but not tender; it was dull on percussion, and its dulness was continuous with the liver dulness. There was a sense of obscure fluctuation, but no hydatid thrill could be obtained. The diagnosis made was that it was probably a hydatid cyst, and not connected with the gall-bladder, for the swelling was too far out, and appeared to be in the liver substance.

The patient was anæsthetised, and an incision made over the swelling; the incision was vertical and about three inches in length. The structures of the abdominal wall were cut through and the peritoneal cavity was opened. The swelling in the liver was then seen; it was hemispherical in shape, whitish in appearance, and projected somewhat from the free margin of the liver. Strips of gauze were packed tightly round the swelling so that the contents should not escape into the general peritoneal cavity. A fine trocar was then inserted into the swelling and two or three ounces of characteristic hydatid fluid were drawn off. An incision was now made into the swelling and its cavity opened. By means of a stream of saline solution the "proper coat" of the hydatid was washed out; no daughter cysts were present. There was no bleeding from the liver substance. The hole in the liver was gently packed with gauze and a drainage tube inserted. The wound was closed except at the point where the drainage tube emerged, and a gauze dressing applied.

Mr. Evans said that hydatids were not very common in this country; they were much more frequently seen in Australia and in Iceland. In the diagnosis of the present case the chief points were: the situation and the character of the swelling; its situation showed that it was not connected with the gall-bladder, and its rounded shape and the sense of fluctuation, slight though it was, showed that it contained fluid. It was unlikely that it was an abscess, for the patient had no rise of temperature. No hydatid thrill was present, and so he (Mr. Evans) was deprived of this aid to diagnosis; but it may be said that this sign is by no means often seen, but when it is present it is very striking. In this case there were no daughter cysts. It is not known, Mr. Evans remarked, why in one case daughter cysts should be present and in another absent; as a rule their presence makes very little difference in the course of the case. However, should the hydatid cyst rupture into the peritoneal cavity, the presence of daughter cysts would make a great difference. Several cases, however, were on record, he pointed out, in which hydatid cysts have ruptured into the peritoneal cavity without giving rise to any severe symptoms beyond, perhaps, a severe attack of urticaria, which has been often noticed in connection with hydatid disease. When, however, daughter cysts are present and rupture into the peritoneal cavity occurs the symptoms are much more severe; peritonitis may arise, or the daughter cysts may find lodgment in various parts of the peritoneal cavity, each giving rise as it grows to a fresh hydatid tumour. The treatment of a hydatid cyst which has been opened must consist, Mr. Evans said, in complete removal of the true wall of the cyst; this is generally best done by means of a stream of water, and then the cavity left may be drained. The prophylaxis of hydatid disease consists mainly in the prevention of the tænia echinococcus finding a breeding place in domestic animals. It is most important that dogs should not be allowed in slaughter-houses, and that the livers of cattle found to be affected with hydatid disease should not be thrown away, but be burnt.

The hole in the liver rapidly diminished in size, and by the end of a week it was found possible finally to remove the drainage tube and packing; the skin wound speedily closed and the patient was discharged well.

CORRESPONDENCE.

FROM OUR SPECIAL CORRESPONDENTS AT HOME.

SCOTLAND.

EDINBURGH.

War—The Wounded in Scotland.

On the morning of the 28th some of the realities of war were for the first time brought home to the people of Edinburgh. At dawn a trainload of wounded soldiers, mostly from the Aisne, were brought from the South and conveyed to No. 2 General Hospital at Crayleith. The hospital train arrived about 2 a.m., and was met by a fleet of some 40 motor ambulances and private cars, and by a corps of stretcher bearers. The transport of the wounded was carried out without any confusion, and before a quarter to four every man was safely in hospital. Captain Stuart, R.A.M.C., was in charge of the arrangements at the Caledonian station, assisted by Mr. James Adair, of the Red Cross. The surgeons at the Crayleith were under the command of Lieut.-Col. Cotterill and Lieut.-Col. Cathcart, and the senior physicians present were Majors Boyd and Comrie.

The Edinburgh and Leith Medical Emergency Committee

Have now issued a circular explaining the steps which were taken in August, when most medical men were out of town. The resolutions adopted were two, the first being to do the work of men who were called away by the war, and the second being to co-operate with the Soldiers' and Sailors' Families Association and the Local Committees of the National Relief Fund in providing medical attendance. In the first of these matters the private arrangements which have been made are quite satisfactory, while in regard to the second the offer of help has been gladly accepted, and on all the Local Sub-committees of the National Relief Fund local medical men have seats. The work of distributing relief under this Fund can scarcely be said to have begun, and bearing in mind the limitations under which it is intended to be given, it is not surprising that as yet there have been few applicants. The sub-committees have now, however, arranged to keep offices open in each ward, and will meet once a week to consider applications for relief.

Insurance Act—Drug Fund.

A memorandum as to the cost of medicines and appliances has now been issued. At the end of the medical year, January, 1914, it was found that the expenditure per insured person varied throughout Scotland from 7½d. in Sutherland to 1s. 10¼d. in Zetland. Twenty-six counties were within 1s. 6d., while none exceeded 2s. For the 25 burghs the range was from 8¼d. up, most being less than 1s. 6d., while seven encroached on without consuming the "floating sixpence." Two burghs—Dumfries and Aberdeen—had passed the 2s. limit. Comparison of the first quarter of 1914 with the corresponding period of 1913 showed in almost all localities an upward tendency averaging about 45 per cent. A special inquiry was accordingly made by Mr. Trocher, D.Sc., Public Analyst, and Lecturer on Statistics in Aberdeen. He examined 156,424 prescriptions out of a total of 3,018,598. He found that the drugs selected were the most modern and in the best repute, and that in any area it is a minority of the profession which runs up the drug bill. About 66 per cent. are original prescriptions and 34 per cent. repeats, whence it is estimated that in Scotland about a million repeats are ordered, at a cost of £30,000. There is a good deal to be said for the view that repeats lead to careless prescribing, and the question arises whether prescriptions consisting merely of "Repeat mixture," showing no prescription written out in full form, should be allowed. Committees are cautioned, also, as to the extent to which emergency drugs and appliances should be sanctioned. In certain areas such appliances as douches, syringes, trusses, sprays, and jaconette have been ordered, but these are not prescribed appliances. The Commissioners recognise that an acquaintance with the facts as to prescribing is an essential preliminary to action, and have now under consideration proposals whereby committees may systematically check prescriptions. They point out that the Pharmaceutical and Panel Committees are under obligation to take action and investigate, and that Insurance Committees are bound to consider such reports and make such surcharges as they think appropriate.

GLASGOW.

Further Arrival of Wounded.

An additional 100 wounded soldiers (now followed by other 200) have arrived at Stobhill Hospital, Glasgow. Besides Lowland Scotch there are also representatives among them of Highland regiments and of numerous English battalions, while there are also some Irish soldiers. It is gratifying to note that a large proportion of the men are only slightly wounded. Most of the others are suffering from sickness, but in only one or two instances are the wounds regarded as serious. All of the patients are progressing favourably. Since 20th ult., when the first batch of 200 wounded arrived, 21 men have up to 28th ult. been discharged from the hospital, and have left for homes in various parts of the country including Preston, Belfast, Londonderry, Dublin and London. Only one case has proved fatal up to that date.

Transport of Wounded in France.

Dr. Charles Walker, delegate of the Scottish branch of the Red Cross Society, who recently returned from France, brought with him an urgent request from Sir Arthur Keogh for assistance in the work of transport. Owing to broken bridges, etc., the work of transporting the wounded from the battlefield in North-Eastern France to the base hospitals has now become extremely difficult. Arrangements are now being made by the Society for the equipment of a mobile unit, consisting of a field hospital, ten ambulances, and subsidiary motor-cars and lorries. This unit will be staffed by four doctors and a complement of nurses and orderlies. Its purpose will be to provide an intermediate halting place between the fighting line and the base hospitals, and means of transport in either direction.

Teeth for Recruits.

The Army Council has accepted an offer made by the Scottish Dentists' Association, on the outbreak of the war, to render dentally efficient men otherwise fit, but who were being rejected on account of their teeth. It has been arranged that the premises of the three branches of the Association and the Glasgow Dental Hospital, Dalhousie Street, should be open daily for the treatment of recruits. Over 60 dentists have offered their services. The British Dental Association is working in conjunction with the Scottish Dentists' Association in organising and filling up the service.

Specialists as Army Surgeons.

Instances that may be given of Glasgow practitioners taken out of their usual line by the war are Dr. H. Wright Thomson (who usually devotes his time to the eye) on service in India, and Dr. Goodwin Tomkinson, dermatologist, attending to a large number of wounded at Stobhill Hospital, Glasgow. Dr. G. H. Edington has also gone on foreign service, and his wards in the Western Infirmary are closed.

LETTERS TO THE EDITOR.

[We do not hold ourselves responsible for the opinions expressed by our Correspondents.]

FORCIBLE FEEDING.

To the Editor of The Medical Press and Circular.

Sir,—Though Dr. Sers' fluent style leads him to employ regrettable words like "invention," "quibble," etc., he still does not read Hansard to support his ideas with real facts, nor indeed does he read even such a recent document as my letter of the 23rd, which he nevertheless attacks in such unpleasant terms.

In that letter I said he "repeated the absurdly false statement that the Cat and Mouse Act had succeeded." I referred to his repetition of Mr. McKenna's statement, and though he speaks of "invention" (!) he positively admits in the same breath that he was in fact quoting that statement. I "invented" therefore nothing.

Nay, more: though Dr. Sers now goes on to explain that personally he considers the Cat and Mouse Act to be "a greater failure than success," he again, in the same breath, actually wishes this monstrous piece of legislation put more actively into force and particularly "by resorting more often to forcible feeding."

I think your readers must by this time have realised how difficult it is to follow Dr. Sers in his confused mass of ideas. In view of the scandal in which prison forcible feeding involves all medical practitioners, matters are made even worse when Dr. Sers tells us he wrote to the *Daily Mail* suggesting that if prisoners suffered on account of forcible feeding "they had themselves only to blame." Dr. Sers evidently wished the unfortunate public which seeks for instruction in the *Daily Mail* to believe that if prisoners did not resist the outrage of being forcibly fed they would not endure any torture. The falsehood of this assertion has been exposed over and over again, as the prison records of unresisting prisoners show. But Dr. Sers will neither read nor learn the real facts of prison forcible feeding. If he did, then he would not write letters to the Press, and truth and humanity would both greatly profit.

His lack of knowledge of the facts and also his (what the Under Secretary of State for the Home Office called) "general prejudice against women" leads him to object to the phrases "torture" and "Cat and Mouse Act." The pages of Hansard and of the prison records prove how perfectly correct the use of these terms is, and also give the proof that it is upon our profession that the worst reproach for this disgusting practice lies since it is the prison doctors (who being also ordinary police constables) are ordered by the Home Office to be the executioners of this form of "torture."

Dr. Sers's final whirlpool of sentences needs a passing reference and a comparison of our positions in this matter. I believe in preventing political crimes by establishing political liberty and enfranchisement, and I do not believe in Dr. Sers's method of first creating political crimes and then seeking to crush them down by brutal Germanic force.

In reply to his question, I shall certainly continue actively to protest against "forcible feeding," because I have proved, firstly, that it is neither "medical" nor "legal," and, secondly, that it is both a foul stain on our profession and a tyrannous means whereby a reactionary Minister may temporarily oppose the development of democratic freedom.

I am, Sir, yours truly,
Victor Horsley.

London.
October 5th, 1914.

A NOTE ON THE NEW PHARMACOPŒIA.

To the Editor of The Medical Press and Circular.

Sir,—You remember that Osler described the general treatment of disease at Johns Hopkins Hospital as "hope and nux vomica." Of the 14,000,000 people who are receiving treatment under the Insurance Act far the largest proportion are being doctored with this prescription—but what do we find in the new "British Pharmacopœia"? Nothing less than that the most potent drug known to therapeutics has been reduced to half strength: for the future tincture of nux vomica will contain only one half of the present strychnine content. This means that practitioners who expect certain results from the tincture will no longer get them, because, in future, ten minims will only equal five. Thus therapy is reduced to chaos and confusion. Not only have the compilers of the new "B.P." cut down the strength of tinct. nucis vomicæ to one-half, but at the same moment they have quadrupled that of tinct. strophanthi. Hence, your heart patient, for whom you have ordered that drug in fairly heavy doses, is liable, after next January, to get a preparation four times as strong, with perhaps lethal effects.

To make confusion worse confounded, the "B.P." juggles with the strength of laudanum—it is made one-third stronger. Conceive, if you can, any more horrible jugglery—nux vomica half strength, strophanthus quadruple strength, laudanum one-third greater strength. That is to say that whenever you prescribe for your patient, with fear and trembling, a fifteen minim dose of laudanum, he must be supplied with the equivalent of twenty minims. Surely, if there be another drug in the pharmacopœia whose potency ought to remain untampered with it is tincture of digitalis. Here again the muddler is at work. The new tincture is only four-fifths of the strength of the old; when you order twenty minims you get only sixteen.

There are 40,000 practitioners on the British Register. Ninety-nine per cent. of them will never bother to learn the new "B.P." They look on mercury as one of the certainties of medicine, but the strength of ungt. hydrargyri is suddenly cut down to about half. In like manner the new white precipitate ointment is made only 5 per cent. instead of ten. Then, again, sarsaparilla, saffron, poppies, arnica, jaborandi, and galbanum are thrown out; but kaladana is put in,

I am, Sir, yours truly,
J. C. McWalter, M.D., LL.D.

October 2nd, 1914.

THE PATHOLOGY AND TREATMENT OF EXOPHTHALMIC GOITRE.

To the Editor of The Medical Press and Circular.

Sir,—I have read Dr. Crookshank's delightfully written paper in the Medical Press, September 30th, 1914. It is scientific, interesting, daring and humorous. The two last qualities are sadly lacking in most medical papers.

I am extremely pleased to find him dealing sledge-hammer blows at the stupid use of the term "idiopathic" in medical circles. My own clinical observation of quite a large number of cases presenting symptoms of Graves's disease enables me to agree with him on several points, and I have learnt a good deal from his paper. For one thing, I am convinced there is no such thing as idiopathic Graves's disease. One might as sensibly talk of German "Jack Johnsons" as idiopathic, because the guns are hidden.

Three cases come to my mind from my own practice. The following brief notes are from memory. All three were women about 30 years old.

(1) Married. One child. Had suffered from a severe attack of rheumatic fever some years previously. About a year before I saw her she began to complain of cough, palpitation, shortness of breath, and persistent diarrhœa as main symptoms. After treatment by means of drugs she entered a provincial hospital, and was there for the three months preceding her visit to me. As far as I could gather, she was rested and given belladonna. As she showed no sign of improvement she was discharged. On investigation, I found a badly eroded cervix uteri, which I treated by applying iodised phenol to it once a week for several months. She said this had not been diagnosed in the hospital. I prescribed a bland and nutritious diet and glyco-thymoline and hyoscyamus to be taken internally. That was six years ago, and the patient is still alive, plump, happy and free from all symptoms of Graves's disease. The cure of the erosion of the cervix was so effectual she had a new baby in due course which she did not procure from under the gooseberry bush. She was not too pleased, as she said her husband was not doing very well in his business. She made the best of it, however, and took in lodgers. She made an excellent recovery after labour.

(2) Single. About two years before coming to me thought she had been poisoned by sewage gas. For many months suffered from diarrhœa, palpitation, and great debility. Later on, after the diarrhœa had been stopped, she developed typical rheumatoid arthritis. She tried drugs, baths, rest cures, etc., for over a year, but went from bad to worse, and was very depressed, in great pain, and helpless when I took up her case. As I could find no very definite local septic focus, I treated her by means of multiple acupuncture and irritants. At the end of six months she had gained 14 lbs. in weight, was free from pain almost, the rheumatoid condition of the arms and hands had subsided, and there was no sign of Graves's disease.

(3) Single. Possible ætiological factors: Influenza and oral sepsis. Symptoms: Loss of strength, palpitation, dyspepsia, etc. Treatment: Dental clearance, application of the galvano-cautery to the root of the neck once a week for many months. Result: An excellent recovery.

I admit that these notes leave much to be desired, but I will send further details to anyone who cares to write to me.

Dr. Crookshank has failed to call attention to the work of two recent writers—Drs. R. Llewellyn Jones, of Bath, and C. J. Macalister, of Liverpool—who have shown that symptoms of tetany, Graves's disease, myxœdema, and Raynaud's disease may be found in some patients suffering from chronic arthritis. I personally find that many of my arthritic patients suffer from asthma as well, and some from diabetes. I quite agree as the result of clinical observation with all that Drs. Jones and Macalister say.

I trust this letter is not too long; volumes could be written about the points raised.

I am, Sir, yours truly,
W. J. Midelton.

112 Charminster Road,
Bournemouth.
October 3rd, 1914.

THE ANÆSTHETIST.

To the Editor of The Medical Press and Circular.

Sir,—The interesting lecture in your last week's issue upon "The Medico-Legal Position of the Anæsthetist," by Mr. J. D. Mortimer, F.R.C.S., recalls to my mind an amusing experience of a Glasgow practitioner well known to me. At a time when the administration of chloroform, etc., was not always, even in large hospitals, in the hands of specially qualified persons, the gentleman in question, being in London, called at several of the larger hospitals to inquire as to their practice in the matter. At one of them, not finding any of the medical staff, he made inquiries of the porter. "Oh," said the latter, "we keep two atheists here."

I am, Sir, yours truly,
SCOTUS.

Glasgow.
October 5th, 1914.

OBITUARY.

SIR HENRY LITTLEJOHN, LL.D., M.D.EDIN.

ON September 30th, at his residence at Arrochar, Sir Henry Littlejohn died at the age of 86. Sir Henry had been in feeble health for the past three years, and his once familiar figure has been little seen in the Edinburgh streets for many months past. He seemed to have the secret of perennial youth, and up to the very end of his active professional life bore his years with the vivacity and alertness of his prime. Sir Henry Littlejohn was born at Edinburgh in 1828, and was educated at Perth Academy, at the Edinburgh High School, and at the University. When only 28 years of age he began to lecture on medical jurisprudence at the College of Surgeons, and when he was 34, in the year 1862, he began what was really his life's work—the duties appertaining to the post of Medical Officer of Health for Edinburgh, which he held until 1908. Although in the public mind, and also among the younger generation of medical men, Sir Henry Littlejohn's personality, his unique dramatic talent, his celebrityas a medical jurist, his reputation as a medical witness, and, perhaps most of all, the innumerable stories—witty, tragic or pathetic—which are associated with his name, constitute his chief claim to a place in their memories, his real and enduring fame lies in the great sanitary reforms which he carried through in Edinburgh half a century ago—deeds which on their results are imperishable, though the author may be forgotten—which place Edinburgh in the forefront of sanitary advance, and show the Medical Officer of Health to be one of the leading sanitarians of the century. In 1865 Edinburgh was a hotbed of typhus fever. The disease was endemic in the old town, and from time to time assumed epidemic proportions. The sanitary condition was unspeakable, and was reflected by death rates in the worst wards of 34 to 37 per 1,000. Overcrowding was rife, and the old houses and closes were filthy. Sir Henry Littlejohn's report for that year brought out the state of affairs forcibly, and his efforts were stimulated by the fact that in 1866 the city was visited by cholera. Happily he had an able supporter in the Lord Provost of the city—Lord Provost Chambers—who carried through an Act of Parliament which resulted in the wholesale destruction of the worst slums by the driving through them of open thoroughfares, such as St. Mary Street, Jeffrey Street, and Chambers Street. It is difficult to realise now that Chambers Street, immediately north of the University, was the site of some of the worst and most insanitary dwellings in Edinburgh. If Sir Henry had left behind him nothing but this great work his memory would have been perpetuated, but during the 46 years of his tenure of office he was a pioneer in every sanitary and municipal advance. Such schemes as the notification of infectious diseases, the treatment of infectious diseases in the old Infirmary, and then, when the new Infirmary was built, the conversion of the old Infirmary into a city Hospital, the transference of the old city Hospital to the palatial new buildings at Colinton Mains, found in him a great supporter and friend. It is mainly due to his exertions that the Edinburgh death-rate has fallen from the figures given above to about 14 or 15 per 1,000. For many years Sir Henry Littlejohn acted as adviser to the Local Government Board, and in 1873 his services were recognised by his formal appointment as Medical Officer, a post which he held until 1908. At the same time he was Police Surgeon, and was constantly occupied in investigating criminal cases and in giving expert evidence in both civil and criminal trials. In 1897 he was appointed to the Chair of Medical Jurisprudence in the University in succession to Sir Douglas Maclagan. No greater contrast could be imagined between the two professors—the one tall, grave and dignified; the other dapper, humorous, vivacious, and excelling in all the dramatic arts which go to impress on his hearers the point of a story or the lesson of a case. In his hands, truly, the dry bones of medical jurisprudence and toxicology lived. His appointment, although he was already at an age when most men seek rest and retirement, was universally hailed as the best that could have been made, and in the University chair, as in his other capacities, Prof. Littlejohn was an unqualified success. Notwithstanding all the calls on his time made by his multifarious duties, Sir Henry Littlejohn found opportunity for interesting himself in charitable and philanthropic work. He was one of the founders of the Sick Children's Hospital; he was an Elder in St. Giles Church, and regularly attended the daily services. His position, it need not be said, was fully recognised by his profession and others. In 1875 he was President of the College of Surgeons, and in 1883 President of the Medico-Chirurgical Society. In 1893 he was President of the Institute of Public Health, and in the same year the University granted him the degree of LL.D. In 1895 he was knighted, and in 1907 he was presented by his many friends with his portrait—a lifelike representation from the easel of the late Sir Geo. Reid. It was then that he told how in his youth he had been rejected for life insurance by three distinguished physicians—"That poor fellow, Henry Littlejohn, was a bad life,"; "but," added Sir Henry, "I had the melancholy satisfaction of being one of the many sorrowing companies that followed these doctors to the grave." Of anecdote about Sir Henry Littlejohn a volume might be compiled. His extraordinary mental and physical vigour, his youthful carriage, his volatile manner in which brusqueness and friendliness alternated, but under which lay true kindliness of heart and sympathy, and his prominence in all civic affairs were known to all the people of Edinburgh, and although the reforms he inaugurated will be his lasting memorial in the permanent impress they have made on the city, to the generation which knew him these reforms are overshadowed by the picture of his personality. Sir Henry Littlejohn is sorrowed by a son, the present Professor of Medical Jurisprudence in the University, and several daughters.

DR. DAVID McCRORIE.

THE late Dr. David McCrorie, who died last week, was a holder of the Scottish Triple Qualification. He was bacteriologist to the Royal Infirmary, Glasgow. About six months ago he obtained from the managers nine months' leave of absence on account of the state of his health. In early life Dr. McCrorie was a teacher, and he was at one time second master of Henderson Street Public School, Glasgow, being afterwards headmaster of Laurieston School near Falkirk. He afterwards took up medicine, and upon completing his curriculum he gained at Glasgow University the Foulis Memorial Scholarship, which is awarded to a graduate or licentiate who shall have manifested a capacity for original work in the department of pathology. Dr. McCrorie then proceeded to Berlin, where he made a special study of bacteriology. When his studies were over he returned to Glasgow and practised with his brother, Dr. Archibald McCrorie, in the south side of the city, but at the end of five years he removed to Herriet Street, and gave up private practice. In 1896 he was appointed assistant pathologist at the Royal Infirmary, a position which he retained until 1900, and in December of the following year he became bacteriologist, while he was also lecturer on bacteriology in St. Mungo's College. Dr. McCrorie was the author of several articles of considerable interest to the medical profession. He was 58 years of age, unmarried, and a native of Kilwinning.

REVIEWS OF BOOKS.

THE ILEO-CÆCAL VALVE. (*a*)

This monograph may be taken as one of the symptomatic products of a generalisation of specialism in surgery, in which the producer can look neither to the right or left, but always along the barrel of his collimator tube. The introductory portion of the booklet is constructed from the views of modern anatomical authorities, and the enthusiasm of the junior inquirer must experience some discouragement on being told that "there is no complete agreement among anatomical authorities as to the characteristics of the normal valve," and that "though some observers would have us believe that the condition and relations of the parts are little, if at all, altered by dry preparation (Struthers, Parsons), others (Toldt) condemn the dried forms altogether." This statement is directly followed up by the summarising intelligence that: "In the description of details the same divergence of opinion prevails." An outsider would probably have anticipated that modern methods of scientific research would have by this time furnished more defined results. The old story of the discordant views of travellers on the subject of the cutaneous tint of the chameleon seems to be retold here under different names.

After the presentation of a multiplex series of views regarding the structure and appearance of the ileo-cæcal valve in *post-mortem* conditions, we meet with the discouraging announcement: "But there is no record by any of the observers as to the length of time the subject from which the specimen was obtained has been dead." In reading this sentence we were reminded, with a pang, of the decay of modern English syntax. The author has evidently taken considerable pains in the collection of his material, and has illustrated his text with three coloured and twenty half-tone plates, which the reader will find very instructive.

OPERATIVE SURGERY. (*b*)

This handsome volume has been published, as the author tells us in his preface in response to a demand amongst post-graduate workers in Trinity College, Dublin. It has not been written for students, as students are taught operative surgery to-day, but it deserves a very wide circulation, amongst the class for whom it has been written, the younger surgeons. The style is simple and attractive, almost conversational; the illustrations are excellent and instructive, and in the setting forth of the various operative procedures described we feel we are listening to the carefully considered views of a surgeon of ripe experience. It is, in fact, the personal note of the book that constitutes much of its attractiveness.

The opening section on general surgical *technique* is succinct and practical, without being didactic. In the section on anæsthetics, however, the author lays himself open to a slight charge of inconsistency; "chloroform," we read, "should not be employed if a bottle of ether and a handkerchief are available." Yet later on he recommends the use of chloroform in certain cranial and cleft palate operations. It is a small point, but we are inclined to consider the strictures on chloroform as perhaps somewhat sweeping, though characteristic of Dublin teaching.

Section II. is devoted to the operative surgery of the head and neck. The plan of describing each operation in successive stages from the first incision up to the insertion of the sutures is an admirable one. Each operation is so described, and the reader easily follows out the plan of the operation.

Some ten pages are devoted to a careful consideration of the surgical treatment of tuberculosis of the cervical lymph glands. This is quite the most carefully written *resume* we have read upon this subject; starting with a broad summing up of the pathological changes usually found, the author prefaces his remarks with a pregnant suggestion as to the advisability of a routine estimation of the opsonic index in these cases, with a view to the preliminary administration of tuberculin to raise the patient's resistance. The ensuing account of the operative *technique* is detailed and excellent.

There is an admirable account of thyroid surgery. Special emphasis is laid upon the importance of submitting cases of exophthalmic goitre to surgical treatment before marked degenerative changes have set in in other organs. The various surgical procedures for the relief of this complex malady are discussed adequately, including Jacobson's "polar ligation," which appears to have a very definite value in cases too far gone for more serious surgical interference.

The chapter on cancer of the breast is very well written, and finely illustrated, but we noticed an absence of any reference to prophylactic radiotherapy, either before or after operation. Similarly, in dealing with empyema, the author omits to refer to the value of post-operative breathing exercises, or the employment of autogenous vaccines.

The operation of gastrectomy is well described, though we think that insufficient stress has been laid upon the sensitiveness of the pancreas to trauma during the procedure, in view of the emphasis laid on this point by Mikulicz and Moynihan. Any severe manipulation of this gland has been shown by these observers to raise seriously the mortality of this operation. A concise *resume* of the recent work of Jamieson and Dobson on the gastric lymphatics forms the basis of the account of the operative procedures for the relief of gastric cancer. Full attention is given to the desirability of excising all gastric ulcers owing to the frequency with which cancer has been shown to originate in simple ulceration. The author advises the intervention of the surgeon for appendicitis at the earliest possible moment. The varying conditions of the peritoneum met in association with appendicitis and the consideration of the various operative procedures appropriate for their relief, are admirably described. The surgery of carcinoma of the large bowel and rectum occupies some seventy pages. The whole level of the book is so uniformly good that it is difficult to say what is best; but it seems to us that this particular section could not be improved upon.

In his account of the surgery of the gall passages, the author follows mainly the work of Mayo Robson and Kocher. The concluding section, that of genito-urinary surgery, occupies over 100 pages, and is well up to the level of excellence displayed throughout the whole book.

We wish the author the success this book so thoroughly deserves, and express the hope that its appearance may stimulate that of other surgical monographs from the Dublin School, where the art of surgery, if mute, flourishes no less than that of obstetrics.

GAS POISONING IN MINING AND OTHER INDUSTRIES. (*a*)

We received this excellent monograph with extreme pleasure, and have perused its pages with continuous instruction. Its appearance not merely "supplies a want," real or imaginary, as we find occasionally acknowledged, in his traditional parlance, by even the jaded reviewer; it supplies a mine —let not the reader suspect a pun in connection with the discussion of a volume which has so much to say about mines!—of important and interesting information, both theoretical and practical, on a most important subject. As it is truly stated in the luminous preface of the volume now before us: "Gas poisoning cases, then, both major and minor, are greatly on the increase, and will probably still further increase." And in presence of this unques-

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(*a*) "The Ileo-Cœcal Valve." By A. H. Rutherford, M.D.Edin. Demy 8vo. Pp. vii, 63. London: H. K. Lewis, 1914. Price 6s. net.

(*b*) "Operative Surgery." By E. H. Taylor, M.D., F.R.C.S.I. Pp. XI, and 624. London: J. and A. Churchill. 1914. Price 30s

(*a*) "Gas Poisoning in Mining and other Industries." By John Glaister, M.D. (Glas.), D.P.H. (Camb.), F.R.S.E., etc., etc. Professor of Forensic Medicine and Public Health in the University of Glasgow; and David Dale Logan, M.D. (Glas), D.P.H. Surgeon to the Coltness Ironworks, Newmins, etc. With Plans, Coloured Plates and thirty-six other Illustrations. Edinburgh: E. and S. Livingstone, 1914.

tionable fact it has to be admitted that: "Although in ironworks, steelworks, and collieries hundreds of cases of poisoning by gasses must occur almost weekly, with every now and then one which ends fatally, there is surprisingly little literature on the subject, since very few medical men connected with ironworks and collieries put their experiences on record." Under such circumstances errors have been frequent, and Brouardel has placed on record a case in which the evidence indicated probable poisoning by cantharides—deducted from the presence of intestinal submucus and a very small fragment of what appeared to be the integument of an insect—which was afterwards proved to be one of CO-poisoning by the fumes of an adjoining lime-kiln. The presence of this portly and well-filled octavo volume of xii. + 471 pages will surely help to render the occurrence of such mistakes impossible in the near future.

NUTRITION. (*a*)

THE author, after rightly warning the student of scientific nutrition against "conflicting doctrines expounded by sincere but obsessed philosophers," modestly introduces his "unpretending little treatise." This is prudent, because in the earlier chapters of his book, Mr. Sohn leaves the domain of analytical chemistry with which he is familiar and enters the field of physiology—a field abounding in pitfalls for the unwary. A writer of the author's training and experience would naturally be expected to keep clear of these, but unfortunately this has not proved to be the case, and numerous errors in physiology have crept into this part of his narrative. Thus, the tonsils are defined as small oval glands which secrete mucus to lubricate the fauces. Protoplasm in all the higher forms of life is said to be enclosed in a protecting wall forming a cell; nutrients are said to pass through the walls of the villi by osmosis, and osmosis is defined as the passage of a dissolved substance through a membrane. These instances are in a sense pardonable, but so much cannot be said for the obsolete classification of proteins given, nor for the statement that xanthine bases are absent from nucleo-proteins, and still less for the long-abandoned description of inosite as a carbo-hydrate. The author has confused nucleo-proteins with a class of proteins formerly known as nucleo-albumins and now as phospho-proteins. The phospho-proteins (casein and vitellin, etc.) are distinguished from the nucleo-proteins by the absence of xanthine bodies. As to inosite (formerly called muscle sugar), it has none of the properties of a sugar, and has been proved to be a benzene compound—probably an aromatic alcohol.

Passing over these early chapters, the remainder of the book is, on the whole, good. The author is at home in the chemistry of foods, and treats this part of his subject in a useful manner. His remarks on oxygen and ventilation in Chapter V. and on infant feeding in Chapter VII. are valuable, as also his description of the composition and properties of the various classes of foods in the succeeding chapters. He draws, however, too hard and fast a line between tissue-forming and other foods, and is not justified in saying that gelatine cannot be converted into living tissue. It would be correct to say that gelatin, as the only protein, does not provide all that is necessary for tissue formation, which is a different thing. Rather too much stress is also laid on what he terms "food ratio" (more properly called "nutritive ratio")—namely, the proportion of protein to non-protein articles of food, in the dietary. It is not necessary to keep it so rigidly close to the proportion of 1 to 5 as the reader is led to think. Abundant experience has shown that vigorous health and muscular efficiency can be maintained on far lower ratios than this. Probably a ratio of 1 to 7 is all round better than 1 to 5.

Nor is Mr. Sohn quite up to date in his views about the nutritive value of meat extracts. He cannot free himself from the old belief that they are mere stimulants, and makes no mention of the fact that Folin and others have shown that the greater part of a quantity of creatin added to the diet is utilised as a food and never reappears in the excreta, either as creatin or creatinine. Thompson and his co-workers also have shown that a considerable proportion of the nitrogen of beef extracts is retained, and that in addition they have an indirect nutritive value by causing a more thorough digestion and absorption of other foods. Pawlow has likewise proved that meat extracts promote a better and more active flow of gastric juice, and a Dutch investigator (Eykman) many years ago found that extracts of flesh meat prevent or cure the polyneuritis which is caused by eating polished rice.

There is one remarkable omission from the book. No mention is made of the subject of vitamines and the important field in the subject of nutrition which their discovery has opened up.

It would have been better on the whole if Mr. Sohn had been content to omit from his book all reference to physiology and to give it the title of "Nutriment" instead of "Nutrition." Of those who read it, the majority, it is to be feared, will not have sufficient knowledge of physiology to be proof against the errors contained in the earlier chapters.

CLINIQUE ET THERAPEUTIQUE CIRCULATOIRES. (*a*)

THIS volume is really a synopsis of modern methods of physio-pathological research, most of which are familiar to us, with the possible exception of viscometry. Its special merit is the lucidity with which the author explains the *technique* of these several methods and the significance of their results, individually and collectively. It may not be indispensable for the practitioner to apply these methods himself, though the author holds such to be the case, but it is and must remain indispensable for him to grasp the bearings of the data thus obtained. The most fascinating chapter in the book, to our mind, is that in which the author explains the normal and abnormal correlations between heightened arterial tension and viscosity of the blood. As the investigation of the viscosity of the blood may not be common knowledge, it should be explained that by means of a simple apparatus invented by Hess resembling, roughly speaking, a wet and dry bulb thermometer, we can measure the viscidity (or viscosity) of the blood, a process which only takes three or four minutes. Now the author, as the result of much painstaking direct observation, is in a position to formulate certain rules of the greatest importance, for instance: When high arterial tension coincides with a high grade of viscosity, we are dealing with merely functional hypertension amenable to treatment. When, on the contrary, the high tension persistently coincides with a low grade of viscosity, the case is one of cardio-renal sclerosis at a more or less advanced stage. It must be plain to everyone that this distinction is of the greatest therapeutical and prognostic importance; it is one, moreover, difficult to establish in any other way.

Incidentally, considerable light is thrown on the vexed question of the vaso-dilator action of the iodides. The author holds—and his reasons are well thought out—that no such action can be demonstrated to exist, but it must not be inferred that this medication is therefore useless. One thing seems certain—*viz.*, that in cases of high-tension associated with hypo-viscosity, that is to say, clinically, in all cases in which the reserve functional energy of the heart and kidney is markedly diminished, especially in presence of a tendency to hæmorrhage, the iodides are formally contra-indicated; indeed, they may determine formidable complications. On the other hand, in plethoric, uricæmic, gouty and diabetic subjects with high tension and a high grade of viscosity, with a sound though hypertrophied heart and comparatively healthy kidneys, then the iodides may, if associated with suitable dietary, lower both the tension and the viscosity, thus obviating the otherwise inevitable consequences of the circulatory embarrassment.

Among other valuable data the author explains at

(*a*) "Nutrition: A Guide to Food and Dieting." By Charles E. Sohn, F.I.C., F.C.S. Pp. xv. and 256. London: H. Kimpton.

(*a*) "Clinique et Therapeutique Circulatoires." By Alfred Martinet, M.D. Paris: Masson, publisher. 1914. Pp. 592. Price 12 francs.

length the different forms of renal impermeability, and much of this is new ground. There may be only urea retention or chloride retention or water retention, each of which can be gauged and its importance in the determination of the morbid syndrome defined. It it imposible to exaggerate the importance of these data in respect of treatment, into which the author goes very thoroughly; in fact, one third of the work is devoted to cardio-renal therapeutics.

These remarks may afford some idea of the scope of the work, but in reality it is much more extensive. There is an exhaustive chapter on the measurement and significance of the blood-pressure, and much space is devoted to the mechanism of production of asystole, angina pectoris, aneurysm and arrhythmia

On the whole it is a most fascinating work, which we can cordially commend to the notice of those of our readers conversant with the French language who desire to place themselves *au courant* of the most recent discoveries and innovations in the detection and treatment of cardio-renal states. But why, oh why, will French authors persistently abstain from giving us an index, the place of which is very inadequately taken by a table of contents?

NOTIONS PRATIQUES D'ELECTROTHERAPIE APPLIQUEE A L'UROLOGIE.

This volume forms an exhaustive text-book of its very interesting and important subject. The importance of the domain of urology in surgical practice has long been recognised, and of recent years the latest conquests of scientific advancement have been successfully utilised in making diagnosis therein more easy and therapeusis more satisfactory. Electricity is a science of which nearly everyone still continues to expect a great deal more. If the Pentateuchal dictum was that the blood is the life, the ultra-modern materialist seemed very much disposed—for a couple of decades at least—to substitute electricity for blood. And one of the most brilliant of living exponents of the mysteries of physical science used to state most emphatically that "electricity is ether." We are not quite sure whether he still continues to hold with the same vigour of intellectual prehension the item of scientific dogma thus so definitely enunciated. The subject of electricity is so thoroughly temptatious to the quack—both physical and theological—that its exponents have inevitably brought its fair fame into some disreputable discussion and company. But the present volume is the work of a trained and conscientious expert, and as such deserves the attention of all inquiring practitioners. So far as we know it has had no worthy predecessor in the domain which it so clearly illuminates.

LITERARY NOTES.

We have received from Messrs. Baillière, Tindall and Cox a copy of the eighth edition of the late Dr. Murrell's much appreciated "Aids to Forensic Medicine and Toxicology." The volume is too well known to require description, and the publishers have been fortunate in securing the services of Dr. W. G. Aitchison Robertson for the work of revision. Under his supervision the book has been thoroughly revised, considerably enlarged and brought up to date. Some rearrangement of matter has been carried out—in our opinion with advantage. We think the latter portion of the book, which deals with toxicology, better than the forensic medicine section. As a means of refreshing the memory in these subjects this little book is without equal, and if judiciously employed it should prove of much service to the student and practitioner. The price is 2s. 6d. net.

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From Messrs. J. and A. Churchill there comes a copy of the seventh edition of the Pharmacopœia of the Hospital for Diseases of the Throat, Nose and Ear (Golden Square). The issue of this edition is opportune and unique, as it practically coincides with the jubilee of the foundation of the hospital. The Pharmacopœia has been thoroughly revised, and due recognition has been accorded to modern therapeutics in this branch of medicine. A pleasing feature is the arrangement side by side in each prescription of the dosage of the various ingredients in the metric and English systems. The Pharmacopœia has been arranged alphabetically throughout, and this is considered sufficient to make an index unnecessary—a conclusion with which we do not agree. The Pharmacopœia is most representative, and contains many valuable prescriptions suited to the treatment of affections of the ear, nose and throat. The price is 2s. 6d. net.

MEDICAL NEWS & PASS LISTS.

Infectious Disease in London.

The Metropolitan Asylums Board baving taken over the work of providing for war refugees and many other duties, the institutions under their control are in consequence mostly overcrowded. At the same time there has been a great increase in infectious disease in the metropolis, chiefly in scarlet fever and diphtheria. At a meeting of the Board on Saturday last a letter was read from the Southwark Guardians complaining of the difficulties experienced in obtaining the admission of a child suffering from diphtheria into one of the hospitals of the Board. The matter was referred to the General Purposes Committee, with power to act. It was stated that on September 26 there were 5,302 patients in the Board's fever hospitals, compared with 4,716 a fortnight previously—an increase of 586.

Exhibitions at the Medical Schools.

At Guy's Hospital.—Senior Science Scholarships—J. M. H. Campbell, New College, Oxford, £75; and F. A. Unwin, King's College, London, £35; Junior Science Scholarships—A. E. Sawday, Guy's Hospital preliminary science class, £120; and S. A. Sharpe, Guy's Hospital preliminary science class £50; Entrance Scholarships in Arts—E. E. D. Gray, St. Paul's School, £50; and M. W. O'Bryen, Oratory School, Edgbaston, £50; Open Scholarship in Dental Mechanics—A. H. Bowes, £20; Scholarship in Dental Mechanics for Pupils of Guy's Hospital—W. B. Farrington, £20.

At St. Bartholomew's Hospital.—The Senior Entrance Scholarships in Science, value £75 each, have been awarded to H. B. Bullen, B.A., of Clare College, Cambridge, and C. H. Terry, B.A., of Balliol College, Oxford. The Junior Entrance Scholarship in Science has not been awarded. The entrance scholarships in arts, value £100, have been awarded to J. T. Long, of the Coopers' Company's School, and D. Spurway, of Bridgnorth Grammer School, equal; and the Jeaffreson Exhibition, value £50, to A. B. Bernard, of Dulwich College.

At Westminster Hospital.—Guthrie Scholarship in Arts (£60), J. G. Wilson, Colfe Grammar School, Lewisham; Natural Science (£60), E. S. Davies, University College, London; Anatomy and Physiology (£50), N. M. Lewis, Cardiff Medical School.

London (Royal Free Hospital) School of Medicine for Women.

The following Entrance Scholarships have been awarded by the University of London:—

Two St. Dunstan's Medical Exhibitions of the value of £60 a year for three or five years to Miss K. M. Matthews (Kentish Town Secondary School) and Miss R. C. Townshend (Croydon High School).

Isabel Thorne Scholarship of the value of £30 to Miss D. Pantin (St. Paul's Girls' School).

Mabel Sharman Crawford Scholarship of the value of £20 a year for four years to Miss L. C. Adam.

The Conjoint Examining Board of England.

At the Second Professional Examination in Anatomy and Physiology, held by the Royal College of Physicians and Surgeons of England on September 24, 25, 26, and 28, 62 candidates presented themselves, of

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(a) "Notions Pratiques d'Electrotherapie appliquée à l'Urologie," Par le Docteur Denis Courtade, Chief de Laboratoire à la Faculté Médicine. Paris: F. Gittler, Editeur. 1914.

whom 43 were approved and 19 were rejected. The following were approved:—

K. N. G. Bailey, T. B. Bailey, H. F. G. Berncastle, K. H. Bhat, B. Bishara, L. G. Blackmore, C. J. L. Blair, J. B. Brash, A. W. A. Davies, F. G. L. Dawson, S. El D. El Daab, A. A. H. El-Zeneiny, J. H. Ewen, E. F. Fernando, J. T. T. Forbes, A. R. Hart, M. S. Hashish, T. L. Heath, H. S. Hensman, L.M.S., Madras, E. B. Hickson, S. R. Johnson, G. Mallya, L.M.S.Madras, R. S. Millar, A. Mishriky, B. Mitra, L.M.S.Calcutta, V. S. R. Pandit, W. D. Pearman, A. W. Peeris, W. E. Powell, H. L. Pridham, R. Ran, R. I. Rhys, A. Rodd, H. H. Silley, M. O. Simpson, R. S. S. Smith, V. R. Smith, E. L. Stephenson, A. A. Thiel, E. S. Toogood, B.A.Oxon, S. K. Vaidya, L.M.S. Bombay, L. H. Woods, and W. Yeoman.

The Royal College of Physicians of Edinburgh, the Royal College of Surgeons of Edinburgh, and the Royal Faculty of Physicians and Surgeons of Glasgow.

The following candidates having passed the requisite examinations of the above Board on 3rd October, 1914, were admitted Diplomates in Public Health:—Hira Singh Anand, M.B., Ch.B.Edin., Cromwell Gamble, M.B., Ch.B.Edin., James W. Edington, M.B., Ch.B.Edin., Stephen Ramchandra Rao, F.R.C.S.Edin., etc., Lakshmi Prasad Chaliha, F.R.F.P. and S.G., etc., John H. Boag, M.B., Ch.B. Edin.

St. John Ambulance Brigade, Dublin.

The following appointments have been made to the Assistant Commissioner's headquarters staff as corps officers:—Corps Superintendent, Captain Walter C. Stevenson, M.D.; Corps Chief Surgeon, Seton Pringle, Esq., F.R.C.S.; Lady Corps Superintendent, Dr. Ella Webb; Assistant Corps Surgeon, R. de C. Wheeler, Esq., M.D.

Army Medical Service—R.A.M.C.

The following are granted the temporary rank of Lieutenant:—J. F. Gill, M.B., E. Ashby, E. E. S. J. Galbraith, W. T. Hessel, M.B., T. H. Pettit, M.B., J. B. Anderson, M.B., F. W. Robinson, M.D., F.R.C.S., A. T. Todd, M.B., T. E. A. Carr, M.B., G S. Sims, M.D. (August 5); B. G. Abercrombie, M.D., C. A. O'Driscoll, J. S. Williamson, H. W. Webb, M.B., F.R.C.S.Edin., S. H. Hay, M.B., R. Marshall, M.B., A. A. Straton, M.D., F.R.C.S.Edin., W. H. R. McCarter, M.B., C. R. Smith, S. G. Dixon, D. J. Mulholland, M.D., A. J. Will, M.B., W. Rankin, M.B., B. N. Murphy, A. G. Bodman, R. B. Heygate, G. F. Hardy, H. F. Warwick, M.B., W. W. Waller, M.B., R. C. Verley, M.B., A. M. Ross, the Hon. L. H. Lindley, M.B., L. T. Wells (September 22nd); E. Martyn-Clarke. C. C. Court, M.B., G. D'R. Carr, E. H. Lawson, M.D. (September 23rd); E. T. Glenny, M.B., J. L. Wilson, M.B. (September 24); D. T. H. Croly (September 25th); E. R. G. Greville, C. E. Redman, W. E. K. Coles (September 26); J. L. Johnson, A. C. Palmer, M.B., F.R.C.S., A. H. Birks (September 28th).

The following officers, Home Hosp. Res., to be tempy. Capts. (August 6th):—A. M. Wood, M.D., A. G. Price, M.B., G. W. Simla Paterson, M.B., J. G. McColl, W. L. Lyall, M.B., A. T. Campbell, M.B., W. W. Fyfe, M.D., J. A. Gray, M.B., R. J. Johnston, M.B., G. Melville, M.B. (August 6th); W. C. Stevenson, M.D. (August 8th); C. T. W. Hirsch (August 12th); W. F. Croll, M.B. (August 14th); J. M. Young, M.B. (August 25th).

MEDICAL WAR ITEMS.

The British Red Cross Society has accepted the offer of the use of 50 beds at the Cancer Hospital, Fulham Road, S.W.

The Royal Colleges of Physicians and Surgeons are allowing recognition of the time spent as probationer-surgeons on active service in the Royal Navy to count towards the period of the five years' curriculum.

It is announced that the Sub-Committee of the St. John Ambulance Association which has been appointed to care for the welfare of the Indian troops proposes to establish a hospital of 500 beds at Alexandria in order that the Indian wounded who have been discharged from the base hospitals may be given an opportunity of gaining health and strength in a climate suited to them. A small clearing hospital at Marseilles will also be undertaken, and it is proposed to supply warm clothing and comforts in the field. An Indian Soldiers' Fund is to be opened, and an appeal will be made to the public in a few days.

The military authorities have accepted the following offers:—Mrs. Charles Muirhead-Campbell's offer of her London house, fully equipped as a hospital for wounded officers; 30 beds for wounded soldiers and sailors at the Royal London Ophthalmic Hospital; 12 beds at St. Peter's Hospital for Stone and Urinary Diseases, Henrietta Street, Covent Garden.

It is stated that there are now four hospitals working in Paris under the British Red Cross. These, by order of Lord Kitchener, are to be increased by a hospital or hospitals capable of taking 500 wounded. The great need now is for ambulances, stores and petrol. It is intended as soon as possible to have 100 Red Cross ambulances in Paris and to keep these always up to full strength.

We are asked by the Belgian Legation to announce that medical men among the Belgian refugees who can speak French, Flemish, and English are requested to send their names to the Belgian Relief Committee, 10 Finsbury Square, E.C., as there is much need of their services at the different hostels.

MEDICAL WAR NEWS.

Among the interesting reports from medical men engaged in or near the fighting line, is one from Mr. James Donelan, M.Ch., M.B.R.U.I., Chevalier of the Crown of Italy, Surgeon to the Throat Department of the Italian Hospital, London, published in the *Pall Mall Gazette*. Recounting his experiences with the French Red Cross Ambulance Staff, Mr. Donelan, who rendered valuable services at Crépy, says that here "the Germans have behaved in their usual fashion. They seized the mayor and nine of the principal townsfolk as hostages and made extensive requisitions. The Town Council arranged to place at their disposal four large emporiums containing practically everything that they asked for—food, ambulance requisites, benzine, cycle tyres, and so on.

"Although this arrangement was accepted, yet, as the tide of victory turned whilst the Germans were in occupation, they vented their spleen upon the inhabitants by pillaging every house in the town. They broke in the doors, and took away silk curtains, clothes, personal and household linen, and ornaments.

"Some of the German wounded who were afterwards brought into the Ambulance had silver spoons, forks, and jewellery belonging to the inhabitants hidden in their long boots. One fellow had three silver spoons in his boots.

"After four days' German occupation the French returned, and the German wounded, except a few cases too bad to be removed, were sent down to Dieppe. The Germans had taken away as prisoners twenty wounded British and six wounded French soldiers who had been in the hospital.

"The French brought in twenty German 'traînards, et autre queue de bataille' (spies, stragglers, and thieves), more or less wounded. It was found subsequently that nearly all of them had revolvers concealed in their matresses, which had escaped detection when they were arrested.

"During my stay I was taken up in a French Ambulance to Pierrefonds, whence we crossed to Villers-Cotterets. The ground between these points slopes gradually towards the Aisne. On the rising ground three or four miles away I could see what appeared to be at that distance small white clouds rising above the trees and bursting.

"My companion explained that these were German shells bursting over the French lines. Even at this distance the din was frightful, and seemed to be composed of a series of booms, screams, and crashes. Except this and a sort of rising mist there seemed to be nothing peculiar, for the nature of the ground made it impossible to see anything of the troops."

In the course of an interview with a Dutch journalist, eight French Army medical men gave a thrilling account of their recent experiences in Belgium. "At the taking of Namur," says the *Gazette de Hollande*, "they remained in the city in order to take care of the wounded, which they did together with their German colleagues. In accordance with the Convention of Geneva, the French doctors were permitted in due course to leave again for France via this country. 'We were not allowed to go South,' they said, 'because of the military situation. We have been at the war from the very beginning,' they further related, 'having gone out with the first French troops. The nursing facilities in Belgium are very satisfactory. All the wounded can be taken in; at Namur many beds were even unoccupied. The work together with our German colleagues after the city had been taken, was very pleasant. They were very correct and courteous towards us. The hospital director was, of course, a German, and both the German doctors and we ourselves impartially took care of the German wounded and those of the Allies. The spirit amongst the wounded was excellent. On the whole, they are brave and wish to go back to the front. Of the dum-dum bullets or other bullets prohibited by International Law none of us have seen anything in the case of the wounded of either party. The ambulance and hospital facilities were excellent on both sides, but we had one great objection, viz., that the wounded were invariably dismissed too soon. Often their wounds had not yet healed, and this may give rise to complications that will cost them their lives. It happens sometimes that soldiers with imperfectly healed shotwounds in the side have to make a two hours' march, and we are of opinion that public attention should be drawn to this fact.'"

Mr. Donelan condemns the methods of medical examination adopted at Folkestone of the passengers arriving there from the Continent, and states that things were managed far better on the French coast.

Dr. L. Tasker, of Alexandra Park, N., who is serving as an officer of the R.A.M.C., contributes his experiences to the *Islington Daily Gazette* as follows:—

"The real sights of war are more terrible than anyone can make up in thought. I am quite well, and we are well fed, but we work like Trojans.

"We lie down at night in our clothes just as we stand, too tired to go through the formality of undressing, and not knowing what time we may be called up to attend on some poor fellows—some slightly wounded, some torn to pieces, some dying. . . . We live in the roar of cannon. They start at early dawn, and continue until after dark. It is terrible.

"The great battle still continues. In our progress through the country we find that the majority of the villages are deserted, the people having fled before the German advance. The weather is very wet, and the continuous moving of transport, guns, etc., have made the road baths of mud.

"You would not know the smart British officer with his unshaven chin, mud up to the waist, dirty hands. As for Tommy, he looks like a Tartar. What else can you expect when they eat and sleep in the open and lie for days in wet trenches? The people of England can and never will realise what war means until a force lands there.

"As to the story of what happened on the 8th and 9th, immediately on my joining No. — Field Ambulance I was sent with the —. On the 8th I was able to keep well under shelter of the fire, although once a few shells burst about a hundred yards from where I was dressing the wounded. On the 9th I was again ordered out with them. We had to take three successive hillocks. Our fellows took the first easily. However, in the wood a German aeroplane spotted and reported us to the artillery, and we had to clear out of that in double quick time, as they shelled us furiously. We then cleared the second hillock, and afterwards went for the third. We had reached the crest with little opposition when all at once—bang! bang! bang! went the rifles all round, and we were trapped. Bullets whistled all round. I dropped into a drain alongside a mountain path, and our brave soldiers extended and went into action like on manœuvres. . . . I lay in the stream-path while the bullets whistled over me, and now and then dug into the sand near me. Still I felt fairly safe from rifle bullets, but, alas! the artillery had found their range, and started shelling us with shrapnel, and then it was just hell. You can guess my thoughts. . . . I continued to lie still, wondering at what moment a piece of shell would end it all. Men were being shot all round. It became too hot in our corner, and we were told to retire. We retired, and as we crept along we were shelled and fired at. Men fell all round, still I was unwounded. Breathless and exhausted, we reached cover, and there I stopped to dress two badly wounded men. Bang! bang! and two shells burst over us. We were covered with stones, earth, and terrible stink. My hat was carried away, but I got off with a slight flesh wound around the forehead. Then our fellows began to advance, and I was left to attend to the wounded and dying. That day we won all along the line. Our battalion slept on the side of the road. The ground was wet, and we had no food, still we slept through absolute exhaustion. The officer who slept with me that night was buried the day before yesterday, shot through the head. And so the war goes on. It is awful!"

NOTICES TO CORRESPONDENTS, &c.

☞ Correspondents requiring a reply in this column are particularly requested to make use of a *Distinctive Signature or Initial*, and to avoid the practice of signing themselves "Reader," "Subscriber," "Old Subscriber," etc. Much confusion will be spared by attention to this rule.

SUBSCRIPTIONS.

Subscriptions may commence at any date, but the two volumes each year begin on January 1st and July 1st respectively. Terms per annum, 21s; post free at home or abroad.

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The following reductions are made for a series:—Whole Page, 13 insertions at £3 10s.; 26 at £3 3s.; 52 insertions at £3, and pro rata for smaller spaces.

Small announcements of Practices, Assistancies, Vacancies, Books, etc.—Seven lines or under (70 words), 4s. 6d. per insertion: 6d. per line beyond.

SUFFERINGS OF THE WOUNDED.

An English correspondent resident in Franch writes us:—"There is considerable excitement here at——on the periodical arrival of the wounded French soldiers from the battlefield. The last batch arrived at midnight and we went on working without a moment's relaxation until 10.30 the next morning. The poor fellows had been four days in the train *en route*. Most of my time was spent on the dressings and administering chloroform at the operations. It is my first experience of military surgery, and the sight is really appalling. If you know any young surgeons anxious for practice, there is plenty of work for them here in the hospitals and ambulances.

Dr. S. O. (N. Wales).—If there are any signs of threatening breakdown in compensation, the patient should certainly not be allowed to go on to term. Most statistics show that the expectation of life in morbus cordis is materially diminished by repeated pregnancies.

THE GUILD OF ST. LUKE FOR MEDICAL MEN.

We are requested to state that the annual service previously arranged at St. Paul's Cathedral under the auspices of the above Guild, will not take place this month owing to the war. A similar service at Bath has also, we understand, been abandoned.

Can any of your readers give any information concerning the "Italian Physico-Chemical Academy" of Palermo? The President is described as Prof. Giuseppe Marletta. The Secretary invites medical men in this country to become Honorary members and accept medals in token thereof, for which they are to pay 100 francs each.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

A series of Museum Demonstrations, intended for advanced

Students and Medical Practitioners, will be given in the Theatre of the College in Lincoln's Inn Fields, as follows:—Friday, 16 Oct., 5 p.m., Prof. Keith, Specimens illustrating Gunshot Injuries of the Head—ancient and modern; Mon., 19 Oct., 5 p.m., Mr. Shattock, Specimens illustrating Carcinoma; Wed., 21 Oct., 5.30 p.m., Mr. Colyer, Specimens of Injuries to the Jaws and Teeth of Animals; Fri., 23 Oct., 5 p.m., Prof. Keith, Specimens illustrating Gunshot Injuries of the Limbs; Mon., 26 Oct., 5 p.m., Mr. Shattock, Specimens illustrating Tuberculosis; Wed., 28 Oct., 5.30 p.m., Mr. Colyer, Specimens of Dento-alveolar Abscess and Dental Cyst; Fri., 30 Oct., 5 p.m., Prof. Keith, Gunshot Injuries of the Thorax and Abdomen; Mon., 2 Nov., 5 p.m., Mr. Shattock, Specimens illustrating Repair.

Meetings of the Societies, Lectures, &c.

THURSDAY, OCTOBER 8TH.

THE NEW LONDON DERMATOLOGICAL SOCIETY (Western Skin Hospital, N.W.).—4.15 p.m.: Clinical Meeting.

MONDAY, OCTOBER 12TH

MEDICAL SOCIETY OF LONDON (11, Chandos Street Cavendish Square, W.).—8 p.m.: General Meeting. 8.30 p.m.: Introductory address by the President, Sir John Bland-Sutton, F.R.C.S.

THURSDAY, OCTOBER 15TH.

ROYAL SOCIETY OF MEDICINE (SECTION OF DERMATOLOGY) (1 Wimpole Street).—5 p.m.: The following cases will be shown:—Dr. J. H. Sequeira—(1) Sarcoids, (2) Myxo-sarcoma; Dr. H. C. Samuel: Xeroderma pigmentosa in an adult; Dr. S. E. Dore. Multiple soft fibromata, and other cases.

Vacancies.

Certifying Factory Surgeons. The Chief Inspector of Factories announces the following vacant appointments:—Alford (Aberdeen), Framlingham (Suffolk), and Rathfriland (Co. Down).

Hulme Dispensary, Dale Street, Stretford Road, Manchester.—Wanted, a House Surgeon, duly registered and fully qualified. Salary £180 per annum. Annual increase £10 to £200, with apartments, attendance, coal and gas. Applications, with testimonials, at once to Honorary Medical Secretary. (See advt.)

Cardiff City Mental Hospital.—Second Assistant Medical Officer. Salary £250 per annum, all found. Applications to the Medical Superintendent.

Parish of St. Leonard, Shoreditch.—Junior Assistant Medical Officer. Salary £150 per annum, with board, apartments, and washing. Applications to Robert Clay, Clerk to the Guardians, Clerk's Office, 213, Kingsland Road, N.E.

Kent County Asylum, Chartham, near Canterbury.—Junior Assistant Medical Officer. Salary £250 per annum, with furnished quarters, attendance, coal, gas, milk, garden produce, washing, and board. Applications to Medical Superintendent.

Birkenhead Borough Hospital.—Junior House Surgeon. Salary £100 per annum, with board and laundry. Applications to Secretary.

Swansea General and Eye Hospital.—House Surgeon. Salary £125 per annum, with board, washing, and attendance. Applications to W. D. Hughes, Secretary

Leicestershire and Rutland Mental Hospital, Narborough, near Leicester. Junior Medical Officer Salary £200 per annum, with board, lodging, and washing. Applications to W. J. Freer, Esq., 10, New Street, Leicester.

University of Otago, New Zealand.—Professor of Clinical Pathology. Salary £600 per annum. Applications to the High Commissioner for New Zealand, 13, Victoria Street, London, S.W.

Victoria Hospital, Burnley.—Second House Surgeon. Salary £135 per annum, with residence, board, and washing. Applications to F. A. Hargreaves, Hon. Sec., 7, Grimshaw Street, Burnley.

Appointments.

Beaumont, A. R., L.R.C.P.Lond., F.R.C.S.Edin., M.R.C.S., Certifying Surgeon under the Factory and Workshop Acts for the Uppingham District of the County of Rutland.

Guillaume, Ida Margaret, L.R.C.P. and S.Edin., L.F.P.S.Glasg., Resident House Surgeon at the Mansfield Hospital, Nottingham.

Killen, S. J., M.D., R.U.I., D.P.H.Camb., Certifying Surgeon under the Factory and Workshops Acts for the Carrickfergus District of the county of Antrim.

Lewis, Edward, L.R.C.P. and S.Edin., L.F.P.S.Glasg., Medical Officer under the Mental Deficiency Act to the Glamorganshire County Council.

Minkley, H. R., M.B.Lond., Assistant School Medical Officer to the Reading Educational Authority.

Births.

BALLANCE.—On October 2nd, at 11 Selwyn Gardens, Cambridge, the wife of Hamilton A. Ballance, M.S.Lond., of Norwich, of a daughter.

BALME.—On October 2nd, at Tsinanfu, Shantung, N. China, the wife of Harold Balme, F.R.C.S., of a daughter.

BROOKS.—At 7 Stanway Gardens, Ealing Common, W., to Dr. and Mrs. Ralph St. John Brooks—a son (William Hope Stanislaus).

DICK.—On October 3rd, at 6 West Street, Scarborough, to Dr. and Mrs. J. R. Dick—a son.

DOBIE.—On October 2nd, at Egerton House, Chester, to Dr. and Mrs. Cyril Dobie—a daughter.

HARMAN.—On September 29th, at 108 Harley Street, W., the wife of N. Bishop Harman, F.R.C.S., of a son.

HAWARD.—On September 29th, at 55 Priory Road, N.W., the wife of Walter Haward, M.B., B.S., of a daughter.

HEWER.—On September 29th, at Church House, Stratford-on-Avon, the wife of E. S. Earnshaw Hewer, F.R.C.S.Eng., of a daughter

PARKHURST.—On October 2nd, at "Rathan," Newhaven, the wife of Rodie Parkhurst, M.B., C.M., of a son.

SYMMS.—On September 21st, at Bungay, Suffolk, to Dr. and Mrs J. L. Symms—a daughter.

Marriages.

ARMITAGE—BLACKWELL.—On September 27th, at the Church of the Holy Trinity, Lane End, Bucks, William Stuart Armitage, Lieutenant, R.F.A., and M.R.C.S.Eng., L.R.C.P.Lond., to Constance Emily Blackwell, daughter of the late Walter Blackwell, very quietly on account of the war.

BURDETT—FISHER.—On September 18th, at Christ Church, Bristol, Surgeon John Head Burdett, R.N., H.M.S. "Prince George," eldest son of John Head Burdett, 15 Waldemar Avenue, Ealing, to Dorothy Clarice, only daughter of Mr. and Mrs. John Fisher, 12 Charlotte Street, Bristol.

HANKINS—JESSOPP.—On September 30th, at St. Paul's, Beckenham, George T. Hankins, M.R.C.S., L.S.A., of Warwick, Queensland, to Fanny Wynne, second daughter of the late John Jessopp, vicar of St. Gregory's, Norwich

LEE—MCNAB.—On September 30th, at 74 Murrayfield Gardens, Edinburgh, quietly, owing to the war, Alaister Fraser Lee, M.D., R.A.M.C.T., 1 Ardross Terrace, Inverness, Lieutenant Highland Mounted Brigade Field Ambulance, to Minnie, second daughter of the late John McNab, Esq., of Swinton, Berwickshire, and of Mrs. McNab, Seacraig, Nairn.

MILNE—ADAM.—On September 30th, at Baxter Church, Kidderminster, Lieut.-Col. Alexander Findlay Milne, I.M.S., retired, late Assay Master, Bombay Mint, of Morkeu, Cults, Aberdeen, to Margaret Neilson, eldest daughter of Mr. and Mrs. Peter Adam, Cairndhu, Kidderminster.

WELCH—SKINNER.—On September 26th, at St. Luke's, West Norwood, Horace Rexford Welch, M.D., eldest son of Samuel Welch, M.D., to Dorothy Eunice, daughter of the late Rev. Henry Skinner, M.A., of Geelong, Victoria.

WILSON—CARTER.—On October 3rd, at Saint Luke's Church, Maidenhead, Hugh Cameron Wilson, M.D. F.R.C.S.Eng., of Monkendons, Maidenhead, to Kate Sybil, fourth daughter of the late Charles Stephens Carter, Esq., of 30 Cookham Road, Maidenhead.

Deaths.

BALLANTYNE.—On Sept. 28th, at 19 Rothesay Terrace, Edinburgh, Emily Rosa Mathew, second daughter of the late George Mathew, Esq., of Worsted Lodge, Cambridgeshire, and wife of J. W. Ballantyne, M.D.

BRETT.—On Sept. 21st, at Strahan, Tasmania, E. S. Brett, M.B., B.Sc. Edinburgh, aged 36, eldest son of the late Dr. F. C. Brett, of "The Elms," Bridlington, Yorks.

FEATHERSTONE.—On Sept. 21st, at "The Golf House," Mitcham Road, Tooting, Joseph Arthur Featherstone, M.D., C.M., Edin., aged 48.

HARLEY.—On Sept. 22nd, nr. Sekondi, John Alexander Harley, M.B., Ch.B., West African Medical Staff, dearly loved husband of Kathleen Agnes Harley, of Kittery, Paignton, and son of the late Alexander Harley and Mrs. Somerville Brown, of 5 Pitt Street, Edinburgh, aged 32.

LITTLEJOHN.—On Sept. 30th, at Benreoch, Arrochar, Sir Henry Duncan Littlejohn, M.D., in his 89th year.

O'CONNELL.—Killed in action at the Battle of the Aisne, on Sept. 20th, Lieut. John Forbes O'Connell, M.B., B.S.Lond., R.A.M.C., elder son of Lieut.-Col. D. V. O'Connell, R.A.M.C. (retd.), aged 25.

PILGRIM.—On Oct. 1st, at Brighton, suddenly, Lt.-Col. Herbert Wilson Pilgrim, M.B., F.R.C.S., Eng., Ind. Med. Serv. (retd.), aged 56 years.

RANKEN.—On Sept. 25th, at Braisne, in France, of wounds received on the 21st, Captain Harry Sherwood Ranken, M.B., Ch.B.Glasgow, M.R.C.P.London, of the Royal Army Medical Corps, elder son of the Reverend Henry and Mrs. Ranken, the Manse, Irvine.

SHAW.—On Sept. 28th, while on a visit to Bournemouth, Harold Bailey Shaw, M.B., B.A., Medical Superintendent of the Isle of Wight County Asylum, aged 55.

THOMSON.—On Sept. 27th, at a Nursing Home, Sir Alfred E. Thomson, M.D., of Cape Town, son of the late Dr. Thomson, of Bangor, County Down.

VASSIE.—On Oct. 2nd, at Crofton Hill, Lanark, Mary Janet Spears, wife of Alex. H. Vassie, M.B., C.M., 98 Priory Road, London, N.W., only child of the late William Roy Spears, Solicitor and Town Clerk, Kilcaldy.

WILSON.—On Oct. 1st, at Tunbridge Wells, Ada, wife of Dr. Stacey Wilson, of 27, Wheeley's Road, Edgbaston, and daughter of the late Henry de Pothonier.

HULME DISPENSARY.

DALE STREET, STRETFORD ROAD, MANCHESTER.

WANTED, a HOUSE SURGEON duly registered and fully qualified. Salary £180 per annum. Annual increase £10 to £200, with apartments, coal and gas. Applications, with testimonials, at once to Honorary Medical Secretary.

THE MEDICAL PRESS AND CIRCULAR.

"SALUS POPULI SUPREMA LEX"

VOL. CXLIX. WEDNESDAY, OCTOBER 14, 1914. No. 16.

NOTES AND COMMENTS.

Surgeons for Serbia.

THE Serbian Relief Fund is asking for surgeons to help in the treatment of the sick and wounded. They do not offer any salary, but guarantee expenses. This form of vicarious philanthropy at the expense of the medical profession, we venture to assert, is out of touch with modern tendencies. The day is gone by when medical men could be found in shoals ready to undertake any gratuitous work professed in the name of charity or humanity. There is, happily, not the least reason to suppose that the ideals of medical men will not be maintained at the high standard which has become a tradition in the land. At the same time their emotional instinct is becoming more tempered with reason. If the surgeon be ready to abandon his practice he is giving the equivalent of an income to the aid of the Red Cross and other relief agencies of the kind, and it is difficult to understand on what ground he should be expected to serve without an adequate salary. The Serbian Relief Committee, as a plain matter of fact, has to compete with the War Office, which offers pay at a rate, roughly, of about £500 a year to newly qualified medical men who join for the War. Unless the Serbian or any other special Relief Fund for the sick and wounded be prepared to pay their medical officers a correspondingly adequate sum, they may expect to find their organisations bare of surgeons. We go further than that and say that no Red Cross or other society should seek to relieve the sick and wounded unless they are prepared to recoup the medical men liberally for the great personal and pecuniary risks to which they are exposed by war service. The Serbian Government, if ready to accept such skilled service, should find the money needed for its remuneration, just as they are forced to pay for guns and other warlike munitions. If British philanthropists undertake to go to the succour of Serbian soldiers let them at least provide enough money to do the thing handsomely.

Tuberculosis and Military Service.

CONSIDERING the supreme importance of physical fitness for all those actually or about to be engaged in any form of active military service, it stands to reason that the medical examination of recruits, even in the present stress of circumstances, can hardly be too severe. We have commented on previous occasions on the mistaken kindness and false patriotism which would pass a man as fit who is suffering from any progressive organic defect that would develop rapidly under severe strain or upon exposure to cold and damp. Such a condition as incipient, latent, or partially healed phthisis, for instance, would, obviously, be wholly incompatible with the arduous work of a soldier; indeed, it is incredible that anyone could be found to think otherwise. The astonishing statement is reported to have been made the other day by no less responsible a person than the chairman of a local insurance committee that the open-air would be beneficial to men who had enlisted upon discharge from a sanatorium. In another case a man waiting for admission into such an institution is said to have rejoined the Army. That such a thing could have happened seems impossible, unless the medical examination had been very incomplete, or the patient cured in the meanwhile. Statistics are not available as to the number of men who return home from the front victims of tuberculosis brought on from the actual conditions of warfare, but it cannot be inconsiderable. Meanwhile, too much care cannot be taken to exclude tuberculous disease of any part of the body when examining men for active service.

Government Recognition of a Naval Surgeon.

IT is always a pleasant thing to record acts or expressions of gratitude for medical services rendered. During the recent revolution in China, Surgeon William Miller, of H.M.S. *Britomart*, gave such valuable assistance in the field and in the hospital at Kiukiang that he was afterwards presented with a gold medal and a diploma, together with a special address of thanks from the Chinese Government. The following is a translation, as given in the *Naval and Military Record*:—"China is one with the rest of the world in honouring philanthropic deeds and by presenting testimonials to preserve their memory; hence, during the war in the South (Kiangsi), when Surgeon Miller attended our wounded, bravely risking the battle, faced the bayonet, braved the firing, endured the heat of the day, was undaunted by the bullets which rained down, and faced the rifles countless as trees of the forest, all these dangers he risked in order to bind up the wounds, care for the sick, and remove the injured to the hospital at Kiukiang; and this he did ceaselessly. He was most assiduous in attending to the wounded, and desperately earnest in his deeds of mercy; whilst the skill which he exercised in the healing art was equal to the greatest traditions, and his gracious ministry to the living and dying was most tender. And so all my soldiers desire to express their gratitude and admiration for his goodness by having made for his acceptance a gold medal and banner which they respectfully present—a token of their loving respect—but to adequately express their sense of his glorious praise, which has so increased his merit, his name should be inscribed in gold, and the fame of his love for humanity set forth in the most beautiful language (literally recorded in "Seal" characters) of sincerity, as a fitting record of their gratitude to Surgeon Miller from Li Chun (signed by his seal), second year of Chinese Republic, fourth month, 1st day."

Darker London and its Lessons.

The nightly darkness into which London has been plunged in order to escape the threatened bombardment by German aircraft should not be without its lessons. A vast number of lights have been extinguished in our streets and within the next few days the police order of "lights out" will have done away with a good many more. In spite of the dimness that now prevails, the nightly life of the great city goes on much as it did before the German Emperor made his bid for the world's supremacy. Traffic is carried on perforce at a more reasonable rate and so far has not been attended by any marked increase of street accidents. That pregnant fact should be noted by those interested in the control of street traffic. As a matter of fact, one of the chief dangers at present arises from an excess rather than from a deficiency of light. The dazzling headlights of the large private motors have a most confusing effect upon passengers in the darkened thoroughfares. On country roads one is familiar with their blinding glare. This point may be commended to the serious attention of the British Automobile Association, which has already done a great deal to harmonise the relations between motorist and public.

The Cost of Excessive Street Lighting.

One solid fact that emerges from the passing gloom is the readiness with which the Metropolis can shear away half or three-quarters of her nightly illumination. The unavoidable conclusion is that a large amount of ordinary street lighting is unnecessary for civic purposes and its maintenance is correspondingly wasteful. The cost of maintaining a dozen street lamps where two or three would be sufficient falls, of course, on the shoulders of the ratepayer. In those districts which have no municipal supply the profits arising from extravagant consumption go to the shareholders of those concerns. There is, naturally, a good deal to be said on the other side of the question, as the well-lighted street is undoubtedly an important factor in the maintenance of law and order. Good lighting, however, is a thing apart from the excessive blaze that floods many of the streets of our chief centres of population. Any statistician who cared to enter into the figures would find enormous sums spent nightly in the mere outside or "display" lighting of the shop windows. The drink bill of the country, about which one hears so much, is probably far exceeded by our lighting bill. At a time like the present, when rigid economy is desirable at all points, the regulation of excessive street lighting is worthy the attention of the public. In many thoroughfares the shop lights render public lamps unnecessary, and the latter might be dispensed with to a great extent. In any case, a large proportion of street lights might be put out at midnight and economy effected in various other directions.

Distinctions Melted Down.

The impassionate and dignified return by British recipients of German military orders, uniforms and decorations to their donors that has been and is being carried out of late from the Sovereign downwards contrasts strangely with the feverish and hasty acts of the professors in some of the German universities. In accordance with the crushing spirit of militarism which is the curse of the German Empire at the present time, these savants have boldly declared their intention to renounce all honours and distinctions bestowed on them by universities and scientific societies in this country. Thus, we read that Professor Roentgen has given to the German Red Cross the medal presented to him by the Royal Society of Great Britain in honour of his discovery of the X-rays. The medal, says the *Medical Record*, is of gold to the value of $250, and it will be melted down. The Royal Institute of Public Health in London presented a medal some years ago to Koch, of tuberculosis fame, and now it is stated that his daughter, who is the wife of a Prussian general, has offered this distinction to a company which is melting down precious metals. In this case the medal is to be spared, as it is said to be of greater value as a curiosity. Others, we may suppose, will follow suit. So is the fair name of science dragged into the conflict by a spurious patriotism whose vision is hopelessly warped by the insensate worship of military rule. Knowledge, like the sun, shines far above the clouds of strife and passion, while the light of science continues to guide and illumine those from among every race whose eyes are open to receive her beneficent rays.

Medical Heroism at the Front.

Further particulars have lately been received respecting the heroism of a Jedburgh medical man, Dr. J. Laidlaw Huggan, R.A.M.C., who was killed at the battle of the Aisne on September 16th. Dr. Huggan (says the *Newcastle Chronicle*) was attached to the 3rd Battalion Coldstream Guards, and, according to the testimony of Lieut. Soames, now returned to this country wounded, he behaved in a most gallant way, being recommended for the Victoria Cross only two days before he was killed. He organised and led a party of volunteers, whereby a number of wounded were all safely removed from a barn that had been set on fire by a German shell. The operations were conducted under a heavy shell fire, and the success of the enterprise was entirely due to the gallantry of Dr. Huggan. Such deeds as these will live in the minds of men long after German "culture" has ceased to trouble mankind.

The Medical Roll of Honour.

During the last week, happily, the hand of the destroyer has not made itself felt among medical officers serving at the front, but Captain G. A. Kempthorne, R.A.M.C., previously officially reported missing, is now unofficially reported wounded and a prisoner of war. Officers previously reported missing, now unofficially reported prisoners of war: Captain E. S. B. Hamilton, R.A.M.C., and Captain H. B. Kelly, R.A.M.C. The first list of British prisoners of war received from Germany contains the names of Capt. W. K. Beaman, R.A.M.C., Lieut. A. J. Brown, R.A.M.C., Lieut. P. P. Butler, R.A.M.C., Major P. H. Collingwood, R.A.M.C., Major W. B. Fry, R.A.M.C., Major J. C. Furness, R.A.M.C., Lieut. S. M. Hattersley, R.A.M.C., Lieut. H. W. Hills, R.A.M.C., Lieut. J. L. Lander, R.A.M.C., Capt. J. P. Lynch, R.A.M.C., Capt. E. M. Middleton, R.A.M.C., Lieut. A. Preston, R.A.M.C., Lieut. L. M. Routh, R.A.M.C., and Capt. A. A. Sutcliff.

Dr. John Fletcher Little, M.B., M.R.C.P., of 33 Dorset Square, N.W., late of 1 Park Crescent, Portland Place, W., J.P. for London, who died August 9th last, aged 71 years, left estate of the gross value of £19,904 17s. 1d.

LEADING ARTICLES.

THE DEPLETION OF HOSPITAL STAFFS.

The general depletion of the medical profession on account of the War is already much in evidence in all parts of the United Kingdom. As in all probability the War will last for a year or more it is evident that steps must be taken in order to secure adequate medical service for the community in general. That phase of the question involved in the staffing of the hospitals, both voluntary and Poor Law, demands serious attention. In many instances members of the medical staffs of these institutions have thrown up their ordinary practice and have joined the Army Medical Service either at home or abroad, or one of the Red Cross or other voluntary associations for the relief of the sick and wounded at the seat of war. Under these circumstances the work of the hospitals has in many instances been brought well-nigh to a standstill, owing to the lack of resident and of visiting medical officers and consultants. The Army Medical Department is admittedly unequal to the strain imposed upon it by a great war, and in the present struggle its resources have been taxed to an extraordinary degree. Civilian medical men have responded loyally and enthusiastically to its call for help, but have thereby created a corresponding gap in the ordinary hospital service at home. It is clear that the large proportion of our population whose medical and surgical wants are provided for by the magnificent system of voluntary and Poor Law hospital service, must not be allowed to suffer from the depletion to any extent beyond the minimum unavoidable by humane prudence and foresight. The only practical steps so far taken have been a general relaxation of the stringency of final examinations, whereby many hundreds of students have received a legal qualification. A large proportion of these newly fledged practitioners have been absorbed into the Royal Army Medical Corps. It is obvious, moreover, that the more responsible work of the hospitals must be entrusted to men of maturer knowledge and experience. What is to be done under these circumstances? In the first place the tension might be relieved by increasing the number of junior surgeons and physicians and specialists in the large hospitals. In many of the out-patient departments one man has to do work sufficient to occupy the energies of half-a-dozen, owing to the traditional objection to the multiplication of hospital posts. It is not an uncommon thing for an out-patient physician or surgeon to see fifty to a hundred patients or more. There are plenty of energetic and highly-qualified medical men outside the hospitals who would be ready to share such posts. Then, again, the removal of the condition that bars private or general practice, at any rate in some of the minor posts, would increase the number of available applicants. If such minor posts, again, were salaried, their attractiveness and value to younger men would be greatly increased. Another point that may be considered is whether the services of men engaged in private practice could not be more widely utilised, both in voluntary and Poor Law hospitals. In the present difficulty the engagement of visiting medical men would certainly ease the strain upon the residents left in the latter institutions. Whether the foregoing suggestions be feasible or not it is evident that steps are needed to bring up the depleted hospital service to an efficient working standard. The indirect effects of the present War upon our hospital system are likely to be far-reaching and permanent, and, so far as can be judged, their tendency appears to incline in the direction of a State Medical Service. It seems not unlikely, indeed, that in the long run the Government may take the hospitals under their control, if only as a logical extension of the principle of State responsibility already embodied in the National Insurance Act. Meanwhile, to preserve the efficiency of our existing service is a matter of urgent national concern.

MEDICAL SCIENCE AND THE WAR.

It may be safely anticipated that when the history of the present colossal war is written no small share of credit and renown will be allotted to the medical men on all sides. As things go it is possible only to speak of our own share in the struggle, and from available evidence it is clear that the officers of the R.A.M.C. have played their part with a devotion worthy of the best traditions of our race. The risk to which they are exposed at the front is abundantly testified by the casualties amongst the officers, whose lists of killed, wounded and missing have attained dimensions that point to a portentous loss before the end of the war. The methods of warfare have been revolutionised during recent years, and the two factors of motor transport and long range actions have added greatly to the risks of wounds and capture that have to be faced by the army surgeon in the discharge of his duty. It is well that our countrymen at home should realise the conditions under which he does his work at or near the firing lines. First aid has often to be administered under fire, while field hospitals may be annihilated by long range missiles. Last week the newspapers described an incident in which the bursting of a shell over a hospital tent killed three nurses and several wounded. The fact of increased danger in the medical service, so far from deterring men from seeking to join, appears to aid as a sharp incentive to recruiting. At any rate, medical men compare favourably with other classes of our countrymen who have come forward with splendid enthusiasm to defend the cause of liberty. Any difficulty experienced by the War Office in providing adequate medical care for the wounded in France is certainly not due to the lack of medical men, of whom a large number have for weeks past been eagerly awaiting a summons from the War Office. If these men, regulars and volunteers, are not wanted for British troops it seems somewhat a matter for regret that their services cannot be to some extent available for our Allies, especially for France and Belgium, which are nearer home and from which the hospital units could be recalled at a later stage if found necessary. The medical examination of recruits is now being conducted with despatch, and anti-typhoid inoculation is being carried out on an extensive scale. At the end of last week it was announced that Surg.-General A. T. Sloggett had vacated his post as Director-General of the Army Medical Service on account of ill-health, and had been succeeded by Sir Alfred Keogh, who resigned the appointment only a few years ago. To the latter distinguished officer is due the extremely effectual arrangement by which the home military hospitals, denuded of their orderlies, have been restaffed automatically and speedily by trained members of the St. John's Ambulance Association. There is little fear that Sir Alfred Keogh will meet the exceptional circumstances of medical service in the present war with energy and initiative, especially as regards the fuller use of the civilian medical help that has been so freely offered.

CURRENT TOPICS.

The Mitchell Banks Memorial Lecture.

The delivery last week of the Sir William Mitchell Banks Memorial Lecture in the University of Liverpool, by Sir Victor Horsley, afforded the latter the opportunity which he was not slow to take of lauding the memory of a great surgeon and teacher, and of pointing out his principal contributions to the advancement of surgical science. There can be no doubt that in the surgery of malignant disease, especially carcinoma mammæ, Mitchell Banks was the first to advocate the early and complete extirpation of the local disease and as much of the neighbouring glandular tissue as possible, and this principle has been widely adopted by surgeons ever since. The complete abolition of the sac in the operation for the radical cure of hernia was another principle that Mitchell Banks always strove after, together with the protection of the hernial area by closure of the femoral canal. In this interesting lecture, which will be found in full elsewhere in our columns, Sir Victor Horsley aptly calls attention to one phase of Mitchell Banks' activity—namely, the interest which he took in the daily life of his fellow-citizens of the city of Liverpool. Nothing was further from his heart than to be self-absorbed in his profession, and in this respect his example may well be followed by all who would seek to devote themselves wholeheartedly to the service of their fellow-men, and to assist in the physical and mental betterment of the race.

Pigeons and the War.

The disclosure of a vast network of German espionage in various parts of the United Kingdom has led to vigorous action on the part of the authorities. Special attention has been given to the ownership of pigeons by aliens, and a number of birds have been promptly seized and destroyed. In one instance a German pleaded that he had recently bought the pigeons found in his loft to make a pie, but as they were valuable carrier pigeons able to fly a couple of hundred miles, and as it was shown he had kept them for a year, and had furthermore failed to register himself as an alien, he was sentenced to sharp and summary punishment. The breed of the bird is an all-important feature of the case, for, as most people know, some pigeons are able to fly home for long distances with unerring instinct, while others would be unable to find their way back over a couple of hundred yards. In one case brought to our notice, an Englishman was the proud possessor of a number of prize-bred tumblers. These birds were of the feeblest flight, and one day the owner turned out on the roof of his house a fine bird for its first flight. The pigeon promptly disappeared, and the owner watched for it with a pair of field-glasses for hours, when it haply directed its topsy-turvy flight back to the cote. His manœuvres were promptly followed by a visit from two police officers, who had previously investigated the facts, and who were on this occasion accompanied by a pigeon fancier. The latter was shown the pedigree-book, and had no difficulty in endorsing the statement that the tumblers in question were of a particularly helpless kind so far as flight was concerned, but the pigeon-loft is still kept under strict surveillance. As a matter of fact, the somersaults described by the tumbler pigeon in its flight appear to be a form of epilepsy, the occurrence of which is readily explained by a reference to its bulging, shortened, and misshapen skull, which forms a complete contrast from the shapely and capable-looking cranium of the carrier pigeon.

The Metric System and the New Pharmacopœia.

We are glad to see that the compilers of the new "British Pharmacopœia" are encouraging the adoption of the metric system. There have been considerable divergencies of opinion as to the practicability of its extended employment in this respect. The Preface decides as follows:—"With regard to the weights and measures of the British Pharmacopœia, the metric system has been employed for all pharmaceutical and analytical computations. The metric system has also been employed for the specification of doses, in the expectation that in the near future the system will be generally adopted by British prescribers." The metric system in everyday medicine is one of those things that would be a great boon if once adopted, but whose advent is postponed because of the inconvenience of the actual adoption. Our present system is a clumsy anachronism whose existence is its sole and unjustifiable excuse for existing. To find out how much of a substance is needed to make half a gallon of a $2\frac{1}{2}$ per cent. solution requires at present the mathematical genius of a Newton *plus* a technical literature of reference that would not disgrace a Carnegie library. Of course, we use the metric system fairly often. In all laboratory work we find nothing else and in the practice of therapeutics we cannot even now avoid it in our use of vaccines and serums. Of course, in prescription writing we shall be at sea for a short time, but we shall soon get accustomed to the change. We shall have to learn a good many new doses at any rate, and they will be no harder to memorise in metric than in imperial measure. Doses are given in "mils," a term which has had some vicissitudes during its thirty odd years of existence. It originally meant 0.001 gram—1/64 of a grain, but in the British Pharmacopœia it is used as the equivalent of a "c.c." Beyond this the measure is the same as what we are more or less familiar with and presents no real difficulty. Temperature is throughout measured in Centigrade, and this scale might well be adopted clinically. The hieroglyphic mystery of the old prescription is failing. Instead of dog-

Latin and scruples we shall use English and "c.c.'s." We hope the new scale will come rapidly into general use. In pharmacy at any rate it is high time for us to mend our weighs.

Radiotherapy in Gynæcological Practice.

For various reasons the use of X-rays has not been very largely employed in gynæcological affections in this country, save in cases of uterine myomata, where operative measures have not been carried out, or in malignant disease. Cases of pruritus vulvæ, whether diabetic or associated with the peculiar condition known as kraurosis, are certainly benefited by judicious exposure to X-rays. The use of radium, enclosed in suitable capsules, has also succeeded in bringing about a shrinkage of carcinomatous growths of the uterus or vagina. In an interesting communication Dr. Cuthbert Lockyer (*a*) is convinced that radiotherapy promises great things in the future for the relief of female ailments, and he quotes the opinions and experience of Continental authors in support of his belief. For instance, it is asserted that Krönig and Mengl obtained one hundred per cent. of "cures" with the Krönig-Gauss intensive treatment of uterine myomata. The average time needed for the production of amenorrhœa and shrinkage of a tumour is said to be about eight weeks, the total dose being 1,800 X. If 50 mg. of mesothorium be enclosed in a strong metal capsule it may be left in any portion of the genital canal for many hours together, until the characteristic mesothorium reaction—a blue coloration of the vaginal mucous membrane—be obtained. Other observers are enthusiastic with regard to the combined use of X-rays and radium. In view of the marked progress made by radiology during the past few years, it may be regarded as a useful ally in the treatment of gynæcological disorders, and, as Dr. Lockyer remarks, the best results for the patient are obtained by the two specialities gynæcology and radiology, working in unison—or rather, we should say, in harmony.

The Exchange of Prisoners.

As a rule the exchange of prisoners is a measure of relief to each of the militant parties concerned, and still more so to the prisoners, who are thereby restored to their homes. In the case of medical men a further consideration arises from the fact that their services are of value in ministering to the sick and wounded soldiers among their own countrymen. In the present war the excessive and unusual number of casualties that characterises the campaign in all parts of Europe has almost from the first hopelessly handicapped the efforts of the comparatively exiguous band of available medical men. Hence a rapid exchange of army surgeons is imperatively demanded in the broader interests of humanity. It is to be hoped that the diplomacy of Europe will recognise this fact, and do its best to bring it forthwith to the notice of each and all of the combatant nations. A still better suggestion, advanced recently by Mr. C. H. Grinling, of Woolwich, in the *Daily Citizen*, is that every R.A.M.C. officer or soldier taken prisoner should at once be liberated. It is to be hoped the War Office may find time to attend to this matter.

The Health of Mill Workers and Miners.

In selecting as the subject of his introductory address before the Faculty of Medicine at Manchester University last week "The Industrial Diseases of Greater Manchester," Professor E. S. Reynolds touched upon some important hygienic problems affecting the daily life of some three and a half millions of people in Lancashire. It is a good thing to take stock of our present condition in sanitary matters, especially where great industries are concerned, and therefore it is satisfactory to reflect that the efforts of legislation, the decrease in the consumption of alcohol, the improvements in housing and the general conditions of work have all combined to render the lot of the mill hand and the miner far easier and their health much better than they were thirty years ago. With regard to the cotton trade the main causes of illness are still the inhalation of dust, insufficient ventilation and humidity of the atmosphere, though even these conditions are greatly improved at the present time. Professor Reynolds pointed out that tuberculous disease is rare among colliers, but lead poisoning was the commonest occupational disease. It is often the case that workers with quite small quantities of lead will suffer most, probably because they are less on their guard than those who know the danger of handling the metal in bulk. Nevertheless, the good results of increased attention to hygiene are becoming more apparent every year when the statistics of diseases affecting large numbers of operatives are examined.

PERSONAL.

Dr. Harold Little, M.A., B.C.Cantab., has been appointed Medical Officer of Health for Dunstable.

Dr. Cecil Bury, L.R.C.P. and S. Ed., L.F.P.S. Glasg., D.P.H., has been appointed Assistant Tuberculosis Officer for Oldham.

Mr. T. H. Openshaw, C.M.G., F.R.C.S., has been elected Master of the Ancient and Honourable City Company and Guild of Wheelwrights.

Dr. William Nicol Watson Kennedy, M.B., Ch.B. Edin., D.P.H., has been appointed Assistant Medical Officer to the Croydon Education Committee.

Dr. Henry Holroyd, M.B., B.S.Lond., D.P.H., has been appointed Assistant Medical Officer of Health and Assistant School Medical Officer by the Norwich City Council.

Dr. Robert Armstrong-Jones, M.D., F.R.C.P., opened the discussion yesterday afternoon before the Society for the Study of Inebriety on "Drug Addiction in Relation to Mental Disorder."

Dr. M. J. Kennedy, Oak Lodge, Clondalkin, Dispensary Medical Officer for Clondalkin, has been appointed by the Lord Chancellor of Ireland to the Commission of the Peace for the County of Dublin.

A pair of spurs was presented the other day to Major Charles Robert Bourne, R.A.M.C. (T.F.), by the Falmouth Division of the St. John Ambulance Brigade as a token of appreciation of his services as Honorary Instructor, and also to congratulate him upon his appointment as Major.

The following have been appointed Temporary Assistant Surgeons to the Edinburgh Royal Infirmary for a period of six months, owing to the depletion of the assistant surgical staff:—R. Charles Alexander, F.R.C.S.Ed., Walter W. Carlow, F.R.C.S.Ed., James M. Graham, F.R.C.S.Ed., Frank E. Jardine, F.R.C.S. Ed., and Walter Q. Wood, M.B., Ch.B.

The Cross of Chevalier of the Legion of Honour has been conferred by M. Poincaré, the French President, upon Dr. Simon Flexner, of the Rockefeller Institute of Research. Dr. Flexner is well known to the medical profession in this country for his bacteriological researches in connecton with the cultivation of the virus of anterior poliomyelitis.

(*a*) *Journ. of Obstet and Gyn.*, vol. xxvi., No. 2.

CLINICAL LECTURE

ON

THE PRACTICAL TREATMENT OF INSOMNIA. (*a*)

By H. CRICHTON MILLER, M.A., M.D.

Gentlemen,—The subject of the lecture this afternoon is "The Practical Treatment of Insomnia." But on a subject like this, on which many different views are held, one cannot embark without, to some extent, clearing the ground on the theoretical side, though I shall endeavour to do that quickly.

Insomnia is a symptom always: it is never a disease. In many text-books there is a reference to "idiopathic insomnia." That is the insomnia described by the ignorant man. We are all ignorant on this subject, and the best thing is to admit our ignorance, rather than trying to satisfy our consciences by describing it as idiopathic, or putting a long title to it or classifying it, and concluding that all is well.

Insomnia has been variously defined. The loss of the normal amount of sleep, is one definition; but that, on reflection, does not satisfy one. If I try to sleep in a front bedroom of a house in the Strand, obviously I shall suffer from the lack of the normal amount of sleep, but it will not be insomnia. Another definition is that it is the inability to sleep normally. Neither does that satisfy. There are people, such as myxœdematous patients, who sleep nine or ten hours, but do not sleep normally, and yet they have not insomnia. A fairly good working definition is, the inability to sleep normally under normal conditions.

Now we come to consider what is sleep? That is a nice problem for us to tackle. A French author said of life what we may say of sleep: it does not define itself, it simply manifests itself. Sleep has been defined as the "resting-time of consciousness" by Mlle. de Manacéine, a well-known Russian authoress. This definition is neat, but full of fallacies, because our consciousness is not resting during sleep; it is merely transformed; the normal waking life is transformed into dream consciousness, but it is not resting. How can you define sleep without involving some of the physical sides of the phenomena? Hudson Foster has said that consciousness has no more need of rest than it has of nutrition, which is a neat criticism, and he says sleep is the resting-time of the *support of consciousness.* But when we talk about the support of consciousness we are entering upon theory. Münsterburg, with his characteristic pedantry, describes sleep as "the normal periodical suspension, more or less complete, of conscious processes due to organic conditions." That is bad, because he gives a suggestion of cause, and thus states a dictum. Fraser Harris defines sleep in this way: "the physiologically diminished activity of the cortex cerebri together with the psychologically rhythmically recurring periods of unconsciousness terminating in a spontaneous return to consciousness." That is very clumsy and elaborate, but it contains much truth. Halliburton has described it as "the period of normal repair and growth," and that is more satisfactory, and coming from Halliburton, one naturally listens to it with interest. My own contribution to this array of futile definitions is, "the state of minimal normal activity, psychic and organic." Most of the other definitions suggest a cause or a theory of sleep. The chemical theories of sleep are the oldest, and, on the whole, they are the most out of date. There are the theories of carbon dioxide, and fatigue toxin. The carbon dioxide theory was resurrected with great pomp and ceremony by a very eminent alienist at the last meeting of the British Medical Association, at Brighton, last summer, and also at the International Congress. To say that I am sleeping because I am intoxicated with carbon dioxide is a thing you may prove to me by test-tubes and equations, but you will not convince me as a human being that that is the case. I know that if I am one of eight men sleeping in a close damp bell-tent, roped in, I have slept very heavily, but I am not the man I should be if I had slept in the open or in a shelter; and I have never come nearer to asphyxiation than in the bell-tent I mentioned, nor been further from that state when I slept practically in the open. It is less easy to point to the fallacy in the fatigue-toxin theory. But let us lay it at rest with Halliburton's words: "It rests on the flimsiest of foundations." When Halliburton says that, we need not trouble further about it.

The second group of theories are histological ones, and they depend upon the work of Ramon y Cajal on dendrites and synaptic resistances. There are two phases in which these theories have been represented. One represents sleep as depending upon a shrinking whereby contact ceases in the synapses, so that there is a gap. The other set of theories are based upon the assumption that the opposite condition occurs, and that in sleep there is such a close union of dendritic processes that you are getting short-circuits in all parts, and thereby they would try to explain the incoherence or the irrationality of dream consciousness.

The third group of physiological theories with regard to sleep are the circulatory, and these are the most important. Sleep has been described as due to congestion of the brain, and it has been said to be due to anæmia of the brain. In 1888 someone described in the *Lancet* a cure for insomnia, which consisted in inducing passive congestion of the brain by some kind of breathing. On the other hand, it is now admitted that relative anæmia of the brain, or better, stasis in the cerebral circulation, is a concomitant feature of sleep; it is admitted that during sleep there is a slowing of the circulation. Leonard Hill uses this circulatory basis in this way: that sleep consists in a particular control that we have over the circulation in the splanchnic area, so that when

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(*a*) Delivered at the Medical Graduates' College and Polyclinic, London, on Monday, May 25th, 1914.

we feel sleepy, we are really producing a dilated condition of the splanchnic vessels, with a compensating anæmia of the brain. Hale, on the other hand, says that when we go to sleep we produce again by a vaso-dilator process, a dilatation of the whole circulation of the periphery, that is to say, the cutaneous circulation, and that produces a compensating anæmia of the brain. On the whole, I think Leonard Hill's view is the more acceptable. But let us get down from theory to fact.

I would first ask you to remember that we are never unconscious during sleep; in sleep we have a transformed consciousness. Instead of the relation of the ego to his environment being maintained, as it is during waking hours, we have a complete change, in which the ego goes through thinking processes, but without the same feelings of relativity. Unquestionably thought continues: the direction of thought is altered. There is, in dream consciousness, hardly any, if any, effort to control the thoughts. The thoughts very largely control themselves. Our conscious life ought to consist of a continuously controlled and directed stream of thought by association. But in dream consciousness the thought is completely uncontrolled, and it is all done by spontaneous association. The attention is diffused and dim, extending over a very wide field, instead of a small and well-illuminated one. If you bear in mind these preliminary remarks you will find no difficulty in following me when we go through the phenomena of insomnia when we meet it as a symptom of various diseases.

First let us take up anæmia and chlorosis. There are two obvious ways in which these may affect sleep. There is first the direct effect of oxygenation; *i.e.*, a deficiency of oxygen producing malnutrition of the cortex, and hence an abnormally irritable state of the whole central nervous system, which militates against the state in which sleep is possible. Secondly, if not in true anæmia, certainly in chlorosis, there is marked atony of the whole vaso-motor system. The chlorotic girl has a low blood pressure, and, probably, has great difficulty in maintaining a normal cerebral circulation, quite apart from the blood content—the hæmoglobin co-efficient, etc. Chlorotics are generally supposed to sleep too much. There is a well-known theory that it is because chlorotics sleep too much that they have chlorosis. One would take it the other way and say, because they are chlorotic they sleep too much on account of the constantly atonic condition of the vascular system, producing a poor circulation in the brain. People with aortic stenosis are bad sleepers, they fall asleep very easily, but they remain asleep for any length of time with difficulty, the easy falling asleep being due to the generalised poorness of the circulation, and the lightness of their slumber being due to the irritability of the cortex, which, in its turn, is caused by the poor nutrition of the central nervous system. Of course, in these cases you must use ordinary tonics; hypnotic drugs are, naturally, contra-indicated. In some of these cases it is interesting to give a hypodermic injection of pituitary extract, because it causes a very rapid rise of blood pressure, and so quickly stimulates the cerebral circulation, and thus may cause the patient to go off to sleep in a more normal way.

Now, with regard to cardiac affections. We have to consider the condition of the heart and blood vessels. You may get mitral stenosis, with incompetence and high blood pressure. There may be aortic stenosis, or regurgitation, again with high blood pressure. Or there may be an overstrained heart, with low blood pressure. You must think of the degree to which you assume the brain is getting normal nourishment. You also think of how much the cerebral circulation is being influenced by changes of posture, the warmth of the bed, the food, and so on. In the case of a person with mitral stenosis and a high blood pressure, you must avoid giving a large tumbler of warm milk the last thing at night. The warmth of it may help, but the fluid will further increase the blood pressure. In cases of overstrained heart with lowered blood pressure, in which there is no valvular lesion, you must prescribe exactly as you would for a patient with chlorosis; and the glass of milk at night, by raising the blood pressure, will help. One condition which must be noted is palpitation; many patients say they cannot get to sleep because of it. That is largely owing to the moral effect of the palpitation upon them. It is seen particularly in cases of angina; and the emotional element prevents the possibility of that tranquillity which is essential for sleep. You are also probably getting a type of arterial wave coming through the brain tissue, which mechanically irritates. There is a psychic as well as a physical side to these things; and you must persuade the patient that this pumping which he feels is not going to kill him, that if he goes off to sleep it will not prove to be for ever. And you must give something—preferably bromide, to counteract it.

In the condition of the blood vessels you get the real common cause of insomnia, there is either hypo- or hyper-tension. If you have a man who is getting gouty, and whose blood vessels are inelastic, he is losing compensatory power over his circulation. You know the type of patient, the old gentleman of about seventy, who has been a vigorous man and lived well; and is now upon a meagre diet, which his doctor will not allow him to exceed. He sits down in the drawing-room after dinner before a warm fire and goes to sleep. As he fills everybody with concern at his behaviour, he is urged to go to bed. He does so, but next morning swears he has not slept. This assertion is received with incredulity, but it may be true, for the factors which made him sleep in the drawing-room are reversed when he goes to bed. He has hard arteries. In the drawing-room he was in a relatively vertical position, and gravity was militating against his keeping awake. Moreover, he has his dinner to digest, and the splanchnic area has taken blood away from his brain for the purpose. Again, the warm fire has dilated his peripheral vessels, and in this way still more blood is drawn away from the brain. But when he goes to bed, every one of these factors is reversed. There he is more or less flat, and gravity, instead of helping sleep, makes it more difficult, and there is less of what is spoken of as anæmia of the brain; the splanchnic area does not need so much blood, and the feet are no longer at the fire. So do not be too unsympathetic when the old gentleman says he has not slept. At that stage you may not be able to restore elasticity to the arteries, but you must encourage him to sleep on a high pillow, and have hot bottles to his feet. Also give him something stimulating to take at night; he could have something in a "Thermos" flask by his bedside to take in the night, and that will encourage him.

Hypo-tension produces all its results in the way of insomnia in an opposite way to hypertension. The person with a low blood pressure—110 perhaps—sleeps unsatisfactorily because there is no compensation about his circulation. The chlorotic girl with a low blood pressure has so little tone in her arterial system that she cannot get compensation up. So her cerebral circulation will be never good, and never bad.

I have spoken of relative anæmia of the brain, but I am not sure that it exists in insomnia. It is a matter of very delicate hydrostatics; there are some good physiologists—among them, I think, Starling—who maintain it does not exist. The brain is enclosed in an absolutely inelastic container, and it is the only organ of which that is true. We can speak of engorgement in such organs as the kidney, liver, etc., because their volume may be altered according to the contained blood, but owing to its rigid case, the brain has to remain constant, for all practical purposes. During sleep what probably happens is that blood is passing through the brain at a slower rate than when the person is awake, and the nervous system is very sensitive to that change; sensitive not to anæmia, but to comparative stasis.

Dyspepsia is one of the conditions which most commonly militate against sleep; gastric distension is a well-known disturber of the sleep function. Many people do not sleep simply because of the vigorous growth of sarcinæ in the stomach, so that the increased bulk of the stomach compresses the heart and the splanchnic circulation, and thus stimulates the circulation in the brain. But there are patients of the psychasthenic type who complain of this distension, and whatever you do—starve them, diet them, give them carminatives—you will not cure them, because they are the subjects of neurotic distension. In many of these cases I do not think they keep awake because of dyspepsia, but it is a true neurosis, which is part of their case. Aqua menth. pip is good for this; so is turpentine. In these cases particularly, beware of the milk craze which I have referred to, though you will find the nurse look forward to it as the most sacred rite of the day. It produces only slight and transient anæmia of the brain, and the fluid further increases the blood pressure. Moreover, most of these patients have atonic distended stomachs. The dyspepsia, of course, has its psychic effect upon sleep, apart from the mechanical one; apart from any pain it naturally keeps alive the state of consciousness; patients lie awake at night theorising as to their condition.

There are a large number of cases of insomnia associated with toxic neurasthenia due to intestinal dyspepsia. I think these cases will largely tend to disappear as the nation learns to drink paraffin continually.

I have already spoken of gout, and I would only say, further, that when the gout has got to the point of appreciably reducing the lumen of the arteries and the circulation is affected by more than posture, then the reduction of the lumen is going to cause stasis in the cerebral circulation; and the continuance of that will cause an unsatisfactory state of cerebral nutrition. So that there will neither be a very bright consciousness when the individual is awake, nor a very peaceful slumber. In gout the irritable temper may be due to an alteration in the blood content, apart from the circulation; and Garrod has pointed out that the blood in gouty people is almost neutral.

With regard to general physical treatment, the first thing I would say is that the insomniac is for the most part a person who has much claim on our sympathy, though he claims more than he deserves, and that for the simple reason that the hours we lie awake make a greater impression on us than do the hours we sleep. There are various ways in which one can help the insomniac by showing him that he sleeps more than he thinks he does. If you can prove that, and if he ceases to worry about the amount of sleep he gets, the insomnia will die of inanition.

What we have to aim at, physically, is a slowing of the cerebral circulation; and you can often do much by change of position. You will remember what I said about a high pillow for people with high blood pressure; and you will keep people with low blood pressure as flat as possible. For high blood pressure, try to get the blood to the skin as much as possible; use massage and warmth, and a hot bath is useful, especially a mustard bath last thing at night. Aqua menth. pip is good, because it stimulates the whole gastric circulation. But do not adopt both these measures for the same patient because one would largely counteract the other. Then aim at quieting the heart's action, by such things as bromides, and remove exciting causes. Reading may be soothing, or it may be exciting, according to the book. Macaulay's Essays would not have the same effect as, say, a French novel. So you must satisfy yourself as to what the patient is reading just before going to sleep. There is also a difference according to whether the patient has a half diopter of astigmatism, or whether he is reading a book with large or small type, or with a bright light blazing in front of him. Because, remember, sleep is a poise. The arrangement of the room, and the weight of the bedclothes are also points worth thinking about; and also the question of ventilation. In our country we have an absurd system of blinds whereby if you want to exclude light you must also exclude air. In many countries they have a much better arrangement. You can, of course, resort to blind-folding the patient, a dodge which is well-known in the Tropics. You must also go into the question of fatigue. There is for the insomniac a point of physical fatigue at which it is right for him to retire to bed. If he is allowed to get beyond that, you are not doing your best for him. You can only determine this by the most careful observation. I believe in vibratory massage as the best form of massage for many. Electrical vibrators are very useful, because they produce a very satisfactory imitation of fatigue, without any exertion, and in a very short time. Electricity is useful to some of these people.

From the psychological point of view, remember that sleep is, above all, a habit. Sleep is one of the rhythms of our existence, and in the lower animals these are more accurately observed than with us; it is only civilised and thinking man who interferes with this the most sacred of the rhythms of Nature. And then the question comes as to how best we can re-establish this lost rhythm. It is worth doing a good deal to get back this rhythm of sleep. I am constantly being asked to stop giving my patients hypnotics. They say: "Surely he can now go to sleep without his draught at night." I reply that if this draught were for only this night's sleep, it would be a very expensive sleep, but the draught is for an infinitely more important object, namely, to re-establish the habit of sleep. You will not re-establish sleep in the insomniac unless you train him to sleep night after night, continued for a long time. I often find it difficult to get my colleagues to see that point of view. A doctor will say he is giving a patient five, or it may be ten, grains of veronal when she needs it. At that rate, she will go on needing it for the rest of time. That is not a scientific way of giving these drugs, it must not depend on what the patient did last night, and what she is likely to do to-night; and it is worth doing a lot to avoid the risk of her having a broken night. It is the broken nights which knock the sleep habit to pieces. I know about the fears of setting up a drug habit, but we are not now in the old days when the only hypnotic available was opium, which almost invariably led to the drug habit. We have now drugs for this purpose which can be handled with greater safety, and which do not establish habits in the way that opiates did. When you have got your patient a bad night by grudging your drug, you have done him or her a bad turn; you want to get the patient to forget what it is like to lie awake at night. There are only two conditions in which I use opiates: one is pain, the other is morphinism.

With regard to the other hypnotics, I think we, as doctors, are too much afraid of them. Bromides are excellent, and I have never seen anything worse than acne result from them. I use them for all cases which are akin to epilepsy, and almost always where there is moderate pain. All our new drugs, of the coal-tar variety, etc., fail when there is pain. Try to get into your mind the idea of the conservation of energy. It is the sleep which is induced, even though it be by artificial means, that conserves the energy. A person lying awake at night is dissipating energy, if only by worrying. The veronal group I regard as very useful. Luminal is a new coal-tar preparation, and I strongly advise you to try it: I like it better than veronal. A smaller dose is required, and it should be given with a warm drink. Luminal in 5 gr. doses is a powerful hypnotic. You judge of the effect of a hypnotic by the way the patient feels next morning. You can always make a patient sleep, but you cannot always ensure that he shall awake with a fresh head. Adalin is useless as a hypnotic, unless you give a great deal of it. Still, it is one of the nicest preparations to give an insomniac throughout the day if he is irritable and "jumpy."

I have a great belief in a mixture of hypnotic drugs; I very rarely give one drug only. We get much better results from polypharmacy when it is a matter of sleep drugs. A very good combination is 10 gr. bromide, 10 gr. chloral, with hyoscyamus and cannabis indica. It acts even in long-standing obstinate cases. Liquor brom. chlor. co. B.P.C. gets the patient early to sleep, and the addition of luminal prolongs the effect beyond what would otherwise be the case. If, however, you give luminal alone, it is apt to produce annoying skin symptoms in some people; I have seen a case in which 7½ gr. did this. I am trying now a preparation which is based on this polypharmacy; it is somnacetin. It seems to be very innocuous, and I am testing it on many patients. They seen to awake fresh; but it is necessary to give 1 grm. to produce really satisfactory results.

I had intended to get much further with my subject, and to have devoted some attention to the psychological aspect of insomnia, but I will conclude by giving you three points about the treatment of insomnia:

(1) Never let your insomniac drug himself.

(2) Never let him know what he is getting, or how much. This is necessary, so that the doctor, or the nurse, can adjust the drug to alter it without the knowledge of the patient. It is essential that the patient's dose shall be graduated by an independent party.

(3) Never, under any circumstances, allow your patient to go to sleep with any hypnotic by his bedside, with the idea that he will not take it unless he needs to. It means that the patient's mind is started on a train of speculation as to whether he will or will not need it, even after the light is out and conditions are favourable to sleep. The patient will probably say: "I will not take it now; I will wait another half-hour," and the upshot of it is that the wretched patient gets five hours of sleep instead of eight, because during three hours the draught was in the bottle instead of in his stomach.

Note.—*A Clinical Lecture by a well-known teacher appears in each number of this Journal. The lecture for next week will be by Edward C. Hort, F.R C.P. Edin., Late Assistant Physician Italian Hospital, &c. Subject: The Recognition of Hæmic Infections of the Urine: Its Clinical and Experimental Value."*

ORIGINAL PAPERS.

PRESENT-DAY LESSONS FROM THE LIFE-WORK OF MITCHELL BANKS. (a)

By SIR VICTOR HORSLEY, F.R.C.S., F.R.S., ETC.

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Though the keeping bright the memory of our benefactors is a pleasant and, as in the present instance, a most honourable duty, the object and value of a memorial lecture rests equally on the fact that even a superficial consideration of the conditioning circumstances of our predecessors' work evolves a whole crowd of conclusions which are full of lessons for us.

The life's work of Sir William Mitchell Banks in every aspect is not only interesting and educational, but it is also a pleasant study of how much active public benefit can be secured to the community by the efforts of one of our profession, and how much can be effected by single-mindedness.

For Mitchell Banks tried to live up to Pasteur's scientific idea of what should be the inspiration of a medical practitioner—namely, that "a doctor must consider what people will say about him 100 years hence and not trouble himself about the blame or praise of to-day." Probably, Banks, in his active advocacy and support of surgical and educational reforms, realised Pasteur's ideal more completely than many of his contemporaries.

Seventy-two years ago Mitchell Banks, as he was familiarly known to most of us, was born in Edinburgh (in 1842), his father being Mr. Peter S. Banks, Writer to the Signet, and his mother Miss Ann Williamson. A student of the greatest ability, originality and promise, he took his M.D. degree in 1864 with the highest distinction, and, under the stimulating scientific influence of Goodsir, produced original work on the Wolffian bodies, which at once became the classical authority on that subject. Banks had, in fact, entered the profession at the moment when the greatest advances in medical science were being made by the anatomists owing to the development of microscopical *technique*. Goodsir had all John Hunter's feeling that anatomy should be pursued, not only as part of natural truth to be determined for its own sake, but also always with the interpretation of function as the purpose and object of progress, and Banks's work and thought throughout his whole life exhibited this practical combination.

(a) Being the third Sir William Mitchell Banks Memorial Lecture. Delivered on October 9th, 1914.

We have to thank the Scottish School of Medicine and its various teachers for many things, but especially for the academic recognition of anatomy. For just as Goodsir was the successor to the distinguished line of Munros, so Bell made his contribution to the progress of surgical science more notable through his enforcing dissection by all his students.

But Goodsir was far more than an anatomist limited to his special subject. There was another aspect of Goodsir's influence, which, perhaps, has not been so well realised outside the inner circle of the Edinburgh School fifty years ago, and yet it must have exercised a considerable effect on Banks's active intellect. I refer to Goodsir's comprehensive views of medical work in general and its bearing on social life, which led him, though in many respects a recluse, to take a part in the organisation of the Edinburgh society which was called the "Universal Brotherhood of Friends of Truth," and the principles of which were declared to be the promotion of "Fellowship, Work done, Love for the good and beautiful," and, above all, "Co-operation."

Pre-eminently among Goodsir's pupils, Mitchell Banks tried to carry out these principles of his teacher in his social, communal public life, as well as in his professional work.

There was thus from the first the development in him of that knowledge and sympathy for anatomy as a pure science which subsequently he so extended during his tenure of the Chair of Anatomy in the Medical School as to make that at first the most flourishing teaching department in University College at its foundation in 1882. And, later on, his work for the developing Medical School and University meant labour, not merely for medical science alone, but his sympathy for social science as well, because of the inestimable benefit the University has conferred on the citizens of Liverpool.

What now of the main work of his life, his surgical achievements?

Two subjects will always be honourably associated with Mitchell Banks's name and the Liverpool School of Surgery—namely, Cancer and Hernia. To-day, they are humanity problems just as important and just as much in need of constant notice, consideration and reconsideration as they were when he began to hold up the light of surgical progress.

Both, too, are subjects respecting which his teacher Goodsir had put the true value of surgical work in words which, for their scientific precision and accuracy, are worthy of resuscitation here, and for their just appreciation of the possibilities of clinical work ought not to be forgotten:—

> "It is with methods of prevention and recovery that our profession has to do. If we make use of the terms *cure* and *remedy*, we do so in their fundamental and not in their vulgar sense, for we do not profess to perform the one or to provide the other in their vulgar sense.
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> "What we undertake to provide are: Firstly, the conditions of relief or alleviation of pain as far as these have been discovered; secondly, the conditions of recovery, provided these conditions can be restored; and thirdly, the conditions of longevity within the limits assigned to the life of man in the present phase of his existence."

Everyone who followed Mitchell Banks's work, whether in the wards or as revealed in his writings, knows that these words exactly express what he did, and no one recognised more clearly the scientific limits of the surgery of his day on the fundamental questions of "cure," "relief," "longevity," etc., which were so clearly laid down by Goodsir. No one in speaking of "results" used the word "cure" with more meticulous care, and no one weighed up more carefully in the interests of his patient the risks of any suggested procedure. On this last of Goodsir's points—namely "longevity," a word must be interpolated here. Social changes advance so unnoticed by those participating in them that the handicapping conditions under which our predecessors have worked are seldom remembered and often unknown.

The risks to life caused by even a simple operation and due solely to ignorance and want of civilisation, which existed only a few years ago, are already forgotten in the safety of modern operative procedures.

Thus, for instance, in the year 1864, when Banks began his career, so backward were we in civilisation that a troopship crowded with sick women, children and time-expired men took more than five months to come from Bombay to this country. And, again, to quote an instance from our immediate subject—namely, the survival of patients on whom an operation designed to prolong life has been performed, let me point out that Banks, as late as 1882, stated that the death of a patient by infection was due to such shocking neglect in hospital administration that "many of the beds in the ward in which this patient lay were found to be absolutely rotten"!

And yet under similar depressing circumstances Lister — misunderstood, contemned, and cold-shouldered by his ignorant and unscientific contemporaries—had completely solved long before 1882 the principal part of the "longevity" problem—namely, how to prolong, and not curtail, life by an operation.

Consequently, since we have besides protection from sepsis, modern means for successfully dealing with shock, Goodsir's condition of "longevity" is now fully satisfied in both these subjects of cancer and hernia.

With this preface and with these rather painful memories of a by no means distant past, let us take the first of these cases—namely, cancer, and we must limit ourselves to the special case of cancer of the breast.

No subject is commoner and none has been dealt with more widely by surgeons, and yet, at the present time, there cannot be said to be either a full consensus of opinion among surgeons as to the best operative procedure for dealing with it, nor anything like a fulfilment in practice of a general acceptance of the principles on which that procedure must be based.

Mitchell Banks, at a time when pathology was only just emancipating itself from the pre-conceptions of clinical hypotheses, began with the fundamental fact that cancer is primarily a local disease and must be dealt with as such. Perhaps we owe also to Edinburgh teaching the idea that cancer was not a general blood dyscrasia, but a parasitic disease beginning locally and only gradually invading the body. It seems to have been first taught clearly by John Bell at any rate.

But many decades passed without this all-important axiom being generally accepted. Indeed, after Mitchell Banks had begun to make true surgical principles better known, an old practitioner wrote (anonymously, of course) to the *Medical Times and Gazette*, 1870, p. 762, suggesting that all surgical treatment of cancer of the breast was useless.

It was in this sort of intellectual fog which beset the profession that Mitchell Banks began the work, which became so essentially his own, for which the human race must always be indebted to him, and which, like all achievements of real scientific value, not only enhanced his reputation, but also added further distinction to the School of Surgery in Liverpool.

He first published in detail the results of his work in 1877 and formulated the true position of the surgical treatment of mammary cancer by putting forward two principles:—

(1) That the whole of the breast tissue must be removed, because even in the parts of the gland not obviously the seat of active cancer there were, nevertheless, changes which must be regarded as precancerous. (1)

(2) That all the lymph glands in relation to the

mammæ should be removed, on the ground that it is impossible to determine at the time of operation, (2) when they appear to be normal, that they are not really infected. Though possibly acted upon in general, these two great principles I shall show directly are not even now fulfilled in practice with scientific loyalty, though 35 years have elapsed since Banks promulgated them.

It might be said that these principles of operation for cancer of the breast are after all but the practical recognition of the truth of Bell's dictum that cancer is at first a local disease, but that is only another way of saying that all genuine advance in operative surgery is based on pathology.

Moreover, the need for Banks's teaching was indeed great, since owing to their lack of scientific appreciation of Lister's great discovery, surgeons in 1877 did not operate to remove the disease, but to palliate it. Such palliative operations were so limited in design and execution that even ten years before (in 1867) Moore had protested against what he aptly described as wholly "inadequate operations."

It was in reference to this inefficient fashion of operating in 1877 that Banks in 1882 said in his characteristic way, "Very few people died as an immediate result of it (*i.e.*, such operation). Unfortunately at a little later period they all died from want of a little more of it. For it never effected a cure."

No doubt the fatal error of this incomplete operating was due in a large measure to post-operative difficulties and risks to life which restricted the enterprise of the surgeons of that day, and which they could not or would not see were only due to their neglect of scientific facts and research.

Perhaps the best evidence of this is the fact that even in Mitchell Banks's own practice at that time (1882) the risk to life, *i.e.*, the mortality after operations for cancer of the breast, was no less than 13 per cent., a mortality which in the hands of most modern surgeons has now wholly disappeared from this branch of operative surgery.

Allow me to digress here for a moment on the matter of surgical terminology. I have always urged that the phrase "mortality of an operation," so commonly used is, in fact, a false statement, and should be replaced by "mortality after an operation." For an operation *per se* is not a cause of death unless some accident occurs during its performance, or unless it is unfortunately designed or executed. The fact is that cases are not adequately clinically analysed, and as a rule the old fallacy of *post hoc propter hoc* is allowed to prevail. Shock, for instance, is often attributed to the operative procedure in cases where it is wholly due to the condition into which the patient had been allowed to drift before operation was decided upon. Typical examples of this very common logical error in statistics are to be found in all elaborate tables and discussions of so-called operative mortality in the treatment of various diseases, and none more strikingly so than in the case of cerebral tumours, where the patient is rarely offered surgical treatment until in the last stages of the disease. Let me at the same time point out that this mistake in statistical method is not characteristic of the medical profession only, for mathematical statisticians when dealing with biological subjects also constantly omit to analyse their case material and consequently arrive at most fantastic conclusions on all important questions of public health, such as tuberculosis, alcohol poisoning, infant mortality, housing, etc.

Leaving now the question of danger of treatment as one now wholly without importance, we must proceed to the discussion of the chief object of Mitchell Banks's work on the treatment of cancer—namely, how to secure for the patient what Goodsir meant by "Prevention" and "Cure."

In the case of cancer this means the immediate extirpation of the disease while it is yet only local, and it would naturally occur to an anatomist like Mitchell Banks that such extirpation must include all the structures likely to be invaded in the order—breast, lymph glands, pectoralis muscle.

In speaking of this anatomical order of the mode of invasion of the body by cancer beginning in the breast, it is worth while drawing attention to the close parallelism between it and another parasitic disease, namely, tuberculosis.

The local lesion, the subsequent infection of the glands, and later of the viscera in tubercular inoculation of guinea-pigs presents in a few weeks exactly the same picture that carcinoma does in months or years when commencing in the breast.

Early and complete extirpation of the local disease and neighbouring structures effects a cure in both conditions alike.

That was Mitchell Banks's principle in respect of mammary cancer.

It might be thought that as his surgical teachers at Edinburgh were also primarily anatomists (*a*) he simply followed their inspiration. but I have not been able to find any evidence in their writings that these men had arrived at the point of intellectual evolution which marks the beginning of Mitchell Banks's original work.

One quotation will, I think, prove this. Thus Syme, his chief teacher in surgery, not only was in the habit of dismissing all cases of mammary cancer as hopelessly inoperable if he discovered any evidence of infection of the axillary glands, but also in his last description of operating for the disease given in his "Principles of Surgery" (5th edition, 1863) he makes no mention of removing the glands as a measure of precaution.

There is certainly no evidence that the idea was present to his mind at all, and we may fairly assume that Syme represented the surgery of his day, which had not yet so freed itself from tradition as to be guided by scientific principle.

It was on this principle of making the local removal of the disease complete that Mitchell Banks advocated the clearing of the axilla, and the occasion of this lecture is the moment to consider whether we have thoroughly profited by his teaching, and to see whether the present day operative treatment of cancer is always as complete as it should be, and as he strove to make it.

In the first place, to judge by the text-books at least, removal of the axillary glands is understood to be a *sine qua non*, and Küster, after practising Banks's method for a few years, saw out of 95 recurrences only one occur in the axilla.

But the same statement cannot be made of excision of the supra-clavicular glands; indeed, in the recent monograph on cancer of the breast by the late Mr. Cecil Leaf, this step in the operation was distinctly discouraged.

Yet from the standpoint of surgical principle it cannot justly be omitted, for what Banks said of the axilla, "Since you cannot tell whether the glands are infected or not, remove them and dissipate the doubt," applies with equal force to the supra-clavicular region.

He might have added to his terse phrase the words, "thus giving the patients the further security due to them," for Halstead, who, by carrying out Mitchell Banks's principles with completeness and originality, has done so much to get their truth recognised, found by a laborious and accurate investigation that cancer was present in the supra-clavicular glands and tissues in 34 per cent. of the 67 cases he examined. Plainly, therefore, we owe it to our patients to clear out both fossæ.

It is not just, however, to leave the question of the design of an operation for mammary cancer at this point, for the subject has been further elucidated by subsequent investigators, notably Sampson Handley.

In his method of operating, Mitchell Banks removed the skin freely, and in so far protected his patients from local recurrence, but it was from the empirical point of view of likelihood of original foci of disease being left, and this part of the scheme of operation was not put on a scientific basis until Handley's complete demonstration of the infection paths through the lymph vessels in the fascial planes.

(*a*) The archæology of surgery is always interesting, and on this point I would like to add not only were the Bells and Fergusson anatomists, but that Liston taught anatomy till 1833 when Syme took his place. Though followers of John Hunter they never seem to have been drawn towards biological physiology.

Consideration of this point naturally brings us to the remaining one of the treatment of the pectoralis muscles. The paramount source of risk is, of course, the fascia on the pectoralis major, and the empirical practice of Volkmann in 1875, when he advocated the invariable removal of this fascia (more properly the muscle itself), unfortunately was regarded by the timorous (because septic) surgeons of the day as an extreme measure, and did not gain general acceptance until Heidenhain, many years after Bauks and Volkmann, proved anatomically the widespread degree of involvement of these structures in an average case. Even then the mistaken idea of possible cripplement prevailed in the minds of some against even the realisation of its necessity.

To sum up: Every operation for mammary cancer, in order to fulfil all known requirements and by antagonising all known avenues of the disease really serve the interests of the patients, must include:—

Firstly, very wide removal of skin, breast and margin of subcutaneous fat and fascia outside the gland edge, the pectoralis major and the whole axillary contents—fat, fascia and glands up to the edge of the first rib in one mass; secondly, free removal of the supra-clavicular fat, fascia and glands.

So far as I know, however, this procedure is not followed in its entirety, except by a few surgeons. Various explanations are often offered to justify omitting, in given cases of carcinoma, parts of the procedure, although every such omission is, for the reasons given above, a violation of surgical principle. To me such omission seems also to be a grievous wrong done to the memory of Mitchell Banks, and there we must leave it.

Now let us turn to the other subject which Mitchell Banks, with practical prescience, seized upon as a very common infliction on suffering humanity and yet one most imperfectly treated—namely, hernia.

Prominent among the innumerable benefits which have directly issued from Lister's work is the absolute safety he conferred on the surgical treatment of hernia, and it is interesting to see what a striking diminution of its so-called clinical importance has in consequence resulted.

But hernia still remains a very considerable national evil, and one which it is the business of our profession to remove.

In view of this responsibility upon us and the fact that hernia as a cause of death is a wholly preventable one, it is very depressing to read in the last Report of the Registrar-General for England and Wales—viz., for 1911—that no less than 1569 deaths were certified in one year as due to hernia alone.

Since, as I have elsewhere shown (3), our national vital statistics are extremely untrustworthy (in respect of many causes of death—*e.g.*, alcohol, syphilis, etc., utterly so), we must be careful in endeavouring to analyse this astonishing figure; but it may be assumed to mean that a very large number of persons do really die every year directly because of their suffering from a hernia. Whether strangulation occurs or not, however, important clinically as being the immediately fatal factor, is a detail quite unimportant for the present purpose, and so also is the question how many of the 1569 patients were operated upon.

The one grave fact which stands out clearly is that our present treatment of such a very common and simple condition as hernia is exceedingly faulty, and urgently needs reconsideration, because a very large number of our fellow-citizens are clearly not protected from its fatal consequences.

But there is also an equally important socio-economic reason for condemning our present methods of dealing with hernia, and that is the continual loss of national working efficiency owing to the personal incapacity caused by hernia to the hardest worked and most industrious classes of the community.

On this part of the discussion we must determine, if possible, what proportion of the population are thus handicapped or rendered practically useless to the nation.

In his recent statistical report to the Local Government Board, Dr. Basil Cook gives tables constructed from the examination of recruits which at least constitute a rough basis for a minimal estimate.

From these figures we are probably justified in assuming that at any given moment 500,000 individuals of all ages are suffering to a greater or less degree from hernia in the United Kingdom.

As regards total incapacity leading to social failure and poverty, Dr. Basil Cook found that out of 3,162 paupers nearly 2 per cent. attributed their pauperism to their being rendered incapable by a hernia.

Now if we ask why the medical profession in this matter of hernia has failed to adequately protect the community from such loss, and done so little to preserve national efficiency, the answer is simple, namely, that until quite recently the largest proportion of the profession's mode of dealing with hernia has been by means of trusses.

Unfortunately for the nation the application of a truss to a hernia is not treatment of the evil, but merely palliation. In my opinion, we had drifted into this unfortunate habit of regarding a truss as treatment of hernia by following the usual path of least resistance, for the only procedure which merits the name of treatment is, of course, radical cure, *i.e.*, the obtaining by operation a permanent closure of the hernial defect in the abdominal wall. This being so, we have yet to explain why the profession had largely become satisfied with makeshift applications such as trusses. The explanation is not without interest, and shows that our mal-treatment of hernia is due to the same causes as our inefficient operating for cancer of the breast, and therefore rightly became an object of Mitchell Banks's reforming zeal.

Seventy years ago the misdeeds of itinerant quacks and the disasters of septic infection had brought all operative treatment of hernia into such disrepute that as late as 1840 the then leader of operative surgery, Liston, (4) said: "Operations for unincarcerated (*i.e.*, without any symptoms of strangulation) hernia are not justifiable," and he added, "those who have operated in such circumstances give a very unfavourable account of the experiment."

In fact, throughout the whole pre-antiseptic era no progress could be made until Lister had not only freed operative procedures from the risk of septic infection, but in this case also from the further risk of producing more functional and material injury by suppurative inflammation occurring just where most cicatricial strength was needed. On this latter point I may remind you that Denk (5) showed from his examination of the statistics in von Eiselberg's clinic that of the cases of hernia operations in which suppuration had occurred, recurrence followed in 43 per cent.

The same point had been demonstrated by Damer Harrison (6) 17 years before.

Although Lister's work is not 45 years old, such is the unfortunate conservative influence of tradition and custom in our profession that there still exists a certain prejudice against the radical operation, and some surgeons in consequence still speak of "treating" hernia (even in the adult) with a truss as though this mechanical placebo was something more than a makeshift.

In fact, a truss, like "treatment" by taxis of a strangulated hernia, is one of those *reliquiæ diluvianæ* which will still survive in medical practice to the detriment of the community and suffering public until the only rational treatment by radical cure has become so habituated that operation will immediately follow diagnosis.

This custom being even now prevalent in our profession, it can easily be understood that it was not one of the least difficulties which Mitchell Banks had to contend against when he began, and even as recently as 1882, such was the prevailing darkness on the subject when he read his paper at a (Worcester) Branch meeting of the British Medical Association that Mr. Spanton, in the discussion pointed out that in the "text books of surgery all operations for the cure of hernia were alluded to, only to be condemned as unnecessary and unjustifiable."

No doubt the idea that a truss deserved credit as a form of treatment arose from the number of so-called congenital cases in infants which are apparently cured by a rubber truss or even a figure of 8 woollen band.

All that actually happens under these circumstances is that the normal developmental process of closure of the funicular infundibular cavity occurs, and possibly more rapidly than if no support were used, but that a permanent cure is really produced in all the cases in which the hernia does not recur in adolescence there is no evidence to show. Of course, these cases of so-called cure of congenital hernia are never followed up, and often the previous existence of the hernia in infancy is wholly forgotten.

Thus, as lately as 1895 the principal text-book of British surgery contained the following passage:—"In young children the operation (*i.e.*, radical cure) is comparatively rarely required, for during the first few years of life herniæ show a great tendency to undergo spontaneous cure."

I know of no statistics which justify the use of the word "cure" as here given. One can imagine Goodsir asking the pertinent questions: What is a cure? What was the subsequent adolescent and adult life histories of these cases? How many relapsed soon, and how many developed herniæ with advancing age?

In truth, the actual clinical facts are entirely the other way, as the following analysis of the conditions which underlie the causation of hernia prove.

The old clinicians taught that the causes of hernia were manifold, but that the most important should be all grouped together under one head—namely, muscular effort and strain. That is to say, the assumption was made, and is still taught, that by muscular pressure on the abdominal contents the bowel is driven against the muscles and tissues, gradually stretching these until a sac is completely developed.

I never could bring myself to believe that a smooth, soft, elastic coil of intestine could be forced through the abdominal wall by violent contraction of muscles, the action of which is not in fact convergent on any spot, but over the superficies of the abdomen generally. *A priori*, then, the old theory of the causation being possibly violence alone is not reasonable, and moreover cannot be said to have been proved to be really operative in the way supposed.

Further, every surgeon knows that clinically in the large majority of cases a hernia is stated to have been discovered accidentally by the patient, therefore it was not suddenly produced by any such supposititious violence. Thus Coley found that of 4,780 cases of hernia in adult males it appeared in no less that 3,102 without any known cause or violence.

Frankly, the only reasonable pathogeny is that so clearly worked out and formuated by Hamilton Russell—namely, that a preformed sac is the causal factor of hernia, the clinical converse of this pathological position being the rule first urged by Mitchell Banks and to the discussion of which I will revert directly—namely, that no cure of a hernia is possible unless the sac is removed.

Hamilton Russell's view that all herniæ are due to a primary congenital defect is further proved by the fact that the topical frequency of hernia occurs in precisely the proportion to be expected—namely, according to the regions in which congenital deficiencies and arrests and failures of development most frequently occur. For this reason inguinal hernia heads the list of herniæ by such an enormous majority.

Thus all facts, anatomical, pathological and clinical, confirm the conclusion I have put forward, that so-called congenital hernia is not "cured" by trusses; that when the funnel-shaped fossa in the peritoneal surface and often part of the infundibular tube remain, and when in later life the tone of the muscles is diminished, the hernia naturally becomes re-established.

The logical conclusion follows that for the good of the community—*i.e.*, the State as well as the individual, every hernia must be cured by radical operation as soon as it is discovered, and such, I believe, is the opinion of every modern surgeon.

Mitchell Banks's share in bringing us up to this level of surgical progress was a very interesting one, because although as late as 1893 he was an advocate for the use of trusses, his scheme of real curative treatment was practically what is now universally adopted I believe as a radical cure—namely, the fulfilment of two principles:—

(*a*) Removal of the sac, with restoration of the continuous peritoneal surface—*i.e.*, abolition of the fossa.

(*b*) Protection of the hernial area by closure of the femoral canal.

Of these two Mitchell Banks undoubtedly thought the first most important, but he always fulfilled the second by closing the canal with permanent—*i.e.*, buried—silver sutures.

(*a*) Closure and removal of the hernial sac as the chief step in radical cure.

I have already stated the causal importance of the hernial sac as a developmental relic. If the old theory of causation by sudden violence were correct, then simple ligature of the neck of the hernial sac could not be effective as a radical cure.

Yet that it was actually so has been proved for years by the work of many surgeons, especially Prof. Rushton Parker, (7) and this fundamental principle for which Mitchell Banks contended at a time when little or no support was forthcoming is now thoroughly accepted for the cure of inguinal hernia.

The anatomical conditions of inguinal hernia secure that with the closure of the neck of the sac there is also an abolition of any infundibular fossa, but this is not the case with femoral hernia, and I believe that some unfavourable criticism of radical cure of hernia in general has resulted in consequence of the operative treatment of femoral hernia failing to completely satisfy Mitchell Banks's first principle—viz., complete abolition of the sac. All present-day operations for the radical cure of femoral hernia which approach the sac from below and include various steps such as closure flaps of aponeurotic tissue like the pectineal fascia, etc., are liable to failure, though a certain number succeed.

They should, in my opinion, be wholly abandoned in favour of the method of operating from above, which I employed from about 1890 at University College Hospital.

It consists, firstly, in a 3-inch horizontal incision through the abdominal wall just above the inguinal canal, ample room being obtained by firm retraction, especially of the rectus inwards.

The peritoneum being exposed, traction is made upon it and the femoral hernial protrusion lifted out of its bed intact. The sac is then completely removed and the continuity of the peritoneum made normal.

The upper orifice of the crural canal is then closed, preferably by a flap of periosteum, and a thin scale of bone from the posterior surface of the pubic bone.

I would suggest that recurrence is impossible by this method of operating, and that it involves no more special procedures than those of approach from below, but that its chief value lies in its complete fulfilment of Mitchell Banks's principles.

Schwartschild (8) has since employed a similar procedure for the radical cure of a remarkable case of recurrent obturator hernia.

(*b*) Protection of the hernial area by closure of the inguinal canal.

I have already shown that Mitchell Banks fully recognised the importance of this question, but curiously enough he does not seem to have fully grasped the most important step of supporting an inguinal hernial defect by transplanting downwards the lower border of the internal oblique muscle and fixing it firmly to Poupart's ligament.

Perhaps the elastic value and therefore immensely higher efficiency of muscle tissue as compared to fascial fibrous tissue was not then realised, nor the fact that the rigidity of aponeurotic fibres not only does not prevent their slowly stretching, but also, of course, precludes any physiological elastic recoil which is essential for the support of the viscera.

Owing unfortunately to so many cases coming for radical cure when they have been imperfectly supported by trusses for many years until muscular atrophy has resulted, surgeons have been obliged to employ filagree or other materials to furnish a shield to the abdominal defect, and Trendelenburg indeed transplanted bone for this purpose, but no case of hernia should be allowed to sink into such a difficult and hopeless condition.

To sum up this question of hernia, the removal of which from the community is a matter of such vital importance, I would say that our plain duty is to press to their logical conclusion, namely, early and invariably operation, the principles sketched out for us by our predecessors like Mitchell Banks. Our reward will be that we have then achieved a great benefit for our people and for the State by abolishing a source of danger and suffering.

This leads me to conclude with what can only be a very brief reference to a very large share of Mitchell Banks' useful life, namely, his public work for his city, his infirmary, his university, and his profession.

The help he gave to each was so great that it is impossible to do more than express our gratitude by meeting on an occasion like this.

Deeply interested in all phases of humanity and of human life, and especially in the interests and success of his fellow citizens in the city of his adoption, he emphasised in the following pungent sentences the duty of every one of us to take some active part in public affairs and assist in the development of social progress.

> "We must be something more than mere prescribers of physic and healers of wounds. In my youth I had it strongly recommended to me to stick to my profession and leave everything else severely alone. The life of a doctor was to see patients, do operations, order drugs and collect fees. I thank God that I entirely repudiated this idea of my profession."

Let us show our respect for Mitchell Banks by trying to follow his example.

REFERENCES.

(1) Subsequently fully confirmed by Johnson, Beadles and others.

(2) In 1877 histological methods were not sufficiently advanced to permit of rapid microscopical investigation of doubtful tissues at the time of operation. But such examination, though occasionally carried out, does not meet the necessities of the case in gland infection, since time does not permit of an exhaustive search. Consequently Banks's law is as true now as in 1877, and must be fulfilled to the letter.

(3) Evidence to First Report of the Royal Commission on Venereal Diseases, 1914. Also *British Medical Journal*, 1914.

(4) "Elements of Surgery." London: Longmans. 1840.

(5) *Archiv. f. Clin. Chirurgie*. Bd. 93. 1910.

(6) *British Medical Journal*, Nov. 11, 1893, p. 1039.

(7) *British Medical Journol*, Nov. 11, 1893, p. 1037.

(8) *Deutsche Zeitschrift fur Chirurgie*, Sept. 1904.

THE CONTROL AND TREATMENT OF SCABIES. (*a*)

By FRANK HAUXWELL, M.B., Ch.B., D.P.H.,

Assistant Medical Officer of Health, St. Helens.

In St. Helens information regarding cases of scabies comes to the medical officer mainly from two sources: (1) teachers notify all cases of infectious and contagious diseases occurring in the schools, and (2) health visitors report cases discovered during their weekly visit to the schools, or during the home visitation of children stated to be absent by the school attendance department. All cases reported are seen by the medical officer who excludes the child from school, and no case so excluded is allowed to return to school until re-examined and certified by him to be free from infection. Only in this way can efficient supervision become possible. Many of the cases when first seen are slight in extent, and localised, and with proper care and treatment at home can be cured in a short time. In a considerable number, however, the disease is extensively spread over the body before it comes under observation, and it is in these cases that most difficulty is experienced in supervision and treatment. They are absent from school for prolonged periods, and though they may be under the care of a medical practitioner it is difficult to get the parents to carry out at home the very general and thorough treatment required. For some years past attempt has been made to treat some of these cases by daily bathing at the borough sanatorium, together with disinfection of the underclothing at each attendance. Unfortunately this system, while doing some good, has not been found sufficiently effective, the weak points being (1) the irregular attendance of the children, and (2) re-infection from home sources. Especially when nearly healed did the attendances become irregular, and unless promptly followed up the children would be found in a very short time as extensively affected as at the commencement of the treatment. Even when the attendance was regular, fresh outbreaks were not uncommon, due to re-infection in the home from bed-clothing, etc., or from other cases in the house.

It was therefore decided in October, 1913, to make a more vigorous attempt to deal with the disease. For this purpose a system of isolation of actual cases, together with disinfection of the home, is now carried out. When possible six beds have been set aside in the isolation hospital for the reception of cases of scabies, and this number has been augmented at intervals according as the accommodation allowed. The routine procedure now adopted in all cases is (1) suspected cases are submitted to the medical officer as previously; (2) slight cases and isolated cases occurring in families are advised regarding treatment, and in most cases it is found that directions given are carried out fairly well, and the child recovers within a reasonable time; (3) in other cases the health visitor visits the home and inquires regarding the presence of other cases in the home, and reports on the general cleanliness of the premises; (4) if there appears no satisfactory means of home treatment, all cases from the house are removed to the sanatorium, the bedrooms are disinfected with formalin, and the bedding, clothing, etc., removed for steam disinfection; (5) should the house be in a filthy condition, it is dealt with under the Public Health Act, 1875, Section 120. It is hoped that by these means not only will cases be cured more quickly, but that the sources of re-infection will be materially diminished. The scheme is, however, limited by the accommodation, and it has been found necessary to supplement it by dealing with certain selected cases by means of daily baths at the isolation hospital.

During the six months the scheme has been in operation, 18 cases have been admitted, and 11 cases treated by daily baths. The effect of treatment is shown by the accompanying table which gives the duration in weeks of cured cases treated at home during 1913, together with the duration of cured cases treated at the isolation hospital by daily baths and of those admitted during the past six months.

It will be noticed that of those admitted to the isolation hospital, the stay in two cases extended to eight weeks. This was due in one instance to the child developing chicken-pox fourteen days after admission, followed by pneumonia, and in the other case to persistent dermatitis. The average duration of all cases was—

(*a*) Abstract of paper read at the Annual Congress of the Royal Sanitary Institute at Blackpool, July, 1914.

Children treated at home during 1913 .. .. 8.6 weeks.
Children treated at isolation hospital during past six months—
(1) By daily baths .. .. 4.7 weeks.
(2) After admission .. 3.5. weeks

If the two cases mentioned are excluded from those admitted, the average for those admitted falls to 2.9 weeks.

	Duration in weeks.																							
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24+
Home treatment	-	8	4	6	7	6	2	6	4	4	5	1	1	1	2	2	2	[illegible]	—	—	—	1	—	3
Treatment at isolation hospital—																								
By daily attendance	-	1	1	3	1	4	1	-	-	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
By admission.........	-	6	4	1	3	2	-	2	-	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

It would seem therefore that admission to the isolation hospital gives the best results, though with only six months' experience of the present scheme it may be too early to form a definite opinion. It must be remembered that those cases admitted are all more severe than the cases treated by baths, and it is therefore hardly fair to compare the two classes. Undoubtedly the combined scheme of treatment by the local authority means a more speedy return to health and comfort for the child and a great saving of school attendances. In the isolation hospital many of the expenses naturally go on irrespective of the number of beds occupied, so that if proper advantage is taken of empty beds for cases of scabies the cost is practically limited to food and drugs. It is hoped in future that part of this cost may be recovered from the Board of Education as grant towards the scheme for the medical treatment of school children, and even should it not be so I think the extra expense to the local authority is amply justified.

SUDDEN DEATH DURING THE PUERPERIUM.

By P. RUDAUX, M.D.,
Obstetric Surgeon to the Hospitals.

There are several causes liable to determine sudden death during labour, which are also operative during the puerperal period, the two principal ones being cardiopathy and syncope.

A heightened blood pressure may persist during the first few days after delivery and this would explain the occurrence of delayed asystolê or attacks of acute œdema of the lung occurring ten or fifteen days after the confinement. This is plainly the manifestation of " degeneration of a myocardium which, exhausted by pregnancy and labour, undergoes complete dilatation under the influence of the high blood pressure to which it is subjected " (Pouliot).

With regard to fatal syncope this is met with in women who have been rendered extremely anæmic by free hæmorrhage during or after delivery, and is provoked by some change of position, moving from one bed to another or even by some simple effort. In other cases the nervous system is the starting point, syncope following a powerful emotion, disagreeable news, fright, etc.

According to Meigs and Playfair " in women rendered anæmic by profuse flooding we may get spontaneous coagulation in the right heart, the clot gradually increases in size, acting as a foreign body on the blood with which it comes into contact. Ultimately the heart, irritated by the presence of this clot, contracts imperfectly and syncope follows. If this proves immediately fatal it is because, during the syncope, a fresh mass of blood coagulates and the right heart is more or less obstructed thereby." According to these authors there is no reason for refusing to admit that coagulation may take place in the heart and pulmonary vessels just as well as in other parts of the venous system.

Latent pericarditis may also precipitate a fatal result, as shown in the case reported by Corvisart and quoted by Brouardel. A woman, fully conscious, suddenly dies six days after her confinement. She only complained of the region of the heart where she said she could feel a hard prominent tumour, although no one could detect anything of the kind. At the *post-mortem* examination the pericardium was found to be inflamed throughout and covered with sero-purulent exudation over the entire surface.

The cause of sudden death which dominates this period of the puerperium is infection taking place during labour, especially infection localised in the venous system. If we consult obstetrical literature we find indeed that embolism is the commonest cause of sudden death during the puerperal period. Embolism supervenes in women suffering either from well marked *phlegmasia alba dolens* or from latent phlebitis, an affection which has been fully described by Brun and Madame Liehrmann. In both cases the picture is the same, a woman suffering from phlebitis makes an effort to sit up, or it may be a woman who presents no trace of venous inflammation who has just left her bed for the first time, often in order to leave hospital at too early a period, she utters a cry, becomes pallid and falls back dead.

Sometimes the scene is not so rapid and we witness the struggle of the organism against asphyxia caused by the impaction of a clot in a branch of the pulmonary artery. Or, it may be, following a movement or even without any obvious reason, the patient suddenly becomes the prey of a sudden attack of suffocation, she cries out for more air, the mouth is widely open, the nostrils are dilated, the face is cyanosed, the eyes are prominent. The pulse, rapid to begin with, rapidly fails, and at the same time the extremities become cold and within a terrible few minutes, or at most half an hour, she succumbs. This usually happens between the fourteenth and the twenty-second day, sometimes earlier, towards the tenth day, sometimes later, even as late as a month after the confinement.

In the course of an attack of infection of puerperal origin, sudden death may be caused by hyperacute generalised septicæmia, this is what Hervieux calls puerperal poisoning, or by involvement either of the serous system of the heart or lung or the motor apparatus of the heart. We have already mentioned Corvisart's case in which death supervened most unexpectedly and proved to be due to sero-purulent pericarditis. As in all infections the myocardium may yield all at once under the influence of the toxins which act either on the cardiac fibre itself or on the nervous system. This action on the myocardium is similar to that produced by the diphtheritic toxin, consequently sudden death from myocarditis may supervene in the course of an attack of puerperal infection, or in full convalescence. Puerperal endocarditis, which has been exhaustively investigated by Westphal and Virchow, is rarely *per se* a cause of sudden death, the emboli to which it gives rise being too small and when it proves suddenly fatal it means that the affection has involved the myocardium.

THE VALUE OF THE INCUBATION TEST IN THE EXAMINATION OF WATER AND OTHER PRODUCTS. (a)

By SHERIDAN DELEPINE, M.B., M.Sc.,
Professor of Public Health and Bacteriology in the University of Manchester.

THIS short communication is offered in support of my plea for the adoption of simple bacteriological methods whenever the results looked for can be obtained by such methods; simplicity is a powerful promoter of accuracy and uniformity of results. The fact that incubation at certain temperatures favours the multiplication of certain bacteria and restrains that of others is well known, but the great number of media containing enriching or restraining substances which have been brought forward during the last fifteen or twenty years is evidence that many observers have overlooked the possibility of obtaining good results by simpler methods.

In a paper published in 1898(*b*) I described a method which I had used during the previous six or seven years in the bacteriological examination of water, and which has since that date formed a part of the tests to which water and other products are regularly submitted in my laboratory.

This method consists, as far as water is concerned, in incubating measured quantities of the fluid at a temperature indicated by the purpose in view. The test may be applied to the water alone or more generally to the water after some proteid or other material has been added to it. Since the time when this method was first used by me and by bacteriologists working under my direction, several observers have introduced methods in which incubation at blood temperature plays an important part, and that introduced by MacConkey is perhaps the one most extensively adopted in England. I have, however, found that MacConkey's method, excellent as it is, does not present any material advantage over the one I had previously described, and that inexperienced observers who use that method without proper control are liable to interpret wrongly the results obtained by it.

If properly controlled, the use of MacConkey's media involves a greater expenditure of time than my simple incubation method. In this respect it is open to some of the objections which could be offered to the methods which were in general use in 1890 when I introduced the incubation method which I propose to describe here. I based this method upon observations made during the years 1889 and 1890 upon the effects of temperature and pabulum upon the relative rate of growth and the vital concurrence of micro-organisms. At the Seventh International Congress of Hygiene and Demography, held in London in 1891, I demonstrated by means of cultures of various pathogenic and non-pathogenic moulds the effects of composition of media and of temperature upon mixtures of micro-organisms, and I summed up the results of these experiments as follows (*a*):—

"If two moulds are placed under conditions which allow the growth of both, but which are ever so little more favourable to the one than to the other, the favoured one will not only outgrow the other, but will even prevent (*b*) its development," and I pointed out that this was also true of bacteria.

This principle is particularly useful in investigations which have for their object the detection in water of pathogenic bacteria or of micro-organisms living in the organs of warm-blooded animals. Ordinary water bacteria thrive best at ordinary temperature in water poor in proteid matter. A great number of them multiply very slowly, if at all, at temperatures approaching 37° C., and their growth is generally completely arrested by a temperature exceeding 40° C. Most pathogenic bacteria grow best in proteid media and at a temperature of 37° C. Among them there are a few, such as the Bacillus enteritidis, which multiply rapidly at a temperature of 42° C. Among the fæcal bacteria, the B. coli communis and the B. enteritidis thrive at that high temperature. When a pure, unpolluted water is incubated by itself at a temperature of 42° C., it generally remains clear for many days, and if gelatine or agar plates are made with 1 c.c. of such water after it has been incubated for four, eight, sixteen, twenty-four, forty-eight or more hours, one generally finds that either very few colonies grow on these plates or that the plates remain apparently sterile.

If a fæcally polluted water is treated in the same way, it is usually found that after incubation at 42° C. for from four to sixteen hours, a general turbidity is visible, and that if gelatine or agar plates are inseminated with from 1/1000 to 1 c.c. of that incubated water, an abundant growth of bacteria is obtained among which bacilli of the colon group are generally fairly abundant.

The same differences are observed, but generally in a more marked degree, if, before placing the water in the incubator, a large proportion of slightly alkaline peptone bouillon is added to the waters under investigation. In some cases, whether the water is polluted or not, certain bacilli produce on the surface of the water a thick scum. These are generally sporing bacilli, such as are common in the soil or dust, *e.g.*, some belonging to the B. mesentericus or B. subtilis group.

I have taken advantage of these facts during the past twenty-five years for the purpose of detecting the presence of pathogenic or fæcal bacteria, such as the bacilli of the colon, enteritidis or typhoid groups, the spirilla of the cholera group, etc., in water, sewage, fæcal and

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(*a*) Paper read at the Congress of the Royal Institute of Public Health held in Edinburgh. July, 1914.

(*b*) "Bacteriological Survey of Surface Water Supplies." *Journal of State Medicine*, 1898

(*a*) *Transactions of the Seventh International Congress of Hygiene and Demography*, vol. ii., p. 110, London, 1892.

(*b*) In this sentence the word *delay* would have expressed my view better than the word *prevent*.

other discharges, organs, shellfish and other foods, etc.

When dealing with solid or semi-solid substances, these are first crushed and mixed with definite quantities of sterile water, and the emulsion so obtained is treated as water. The procedure is as follows when the objects are to discover whether bacilli of the colon or of the enteritidis groups are present and to estimate their number approximately. The fluid to be tested may be used undiluted, or it may be diluted so that each cubic centimetre of the dilution contains from 0.5 to 0.0000001 c.c. of the original fluid. In the case of moderately polluted water it is not generally necessary to use less than 0.001 c.c., but in the case of fæcal matter, bad sewage, badly contaminated milk, etc., it may be necessary to reduce the quantity to 0.00001 or even 0.000001 c.c. One cubic centimetre of each of the selected dilutions is added to 5 c.c. of peptone bouillon (+5), which is incubated for from four to sixteen hours at 42° C. At the end of that time, if the bacilli of the groups in question are at all numerous, the fluid is generally distinctly turbid and the turbidity is uniformly distributed. (If there is no apparent turbidity, the tubes are replaced in the incubator for a few more hours.) Without disturbing the fluid a loopful of the upper layers of the turbid bouillon is taken and laid on the surface at one side of a previously prepared plate of litmus lactose agar. (If the turbidity of the fluid is not very distinct, two or more loopfuls are taken.) The small drop of fluid is spread on the surface of the medium with a bent glass rod, successive parallel strokes being made with the rod after the droplet of bouillon has been rubbed thoroughly on the surface of the medium at one side of the plate. The amount of material spread is therefore more abundant at one side of the plate than at the other. The plate so prepared may be placed lid down in the usual glass chamber, but the chamber is not made moist. The plate is incubated at 42° C. (if the object is to look for bacilli of the typhoid group or for the Spirillum choleræ a temperature of 37° C. is more suitable.)

After from eight to twenty hours' incubation, the plates are examined for isolated colonies having the characters and the reactions associated with the organism looked for. The morphological characters, motility, staining reaction, and agglutinating powers are ascertained, and the colonies which are indicated by these preliminary tests to be worth identifying fully are at once sub-cultured in the various media which are usually employed to ascertain the cultural characters and the fermenting properties of the bacteria belonging to the group in question.

By this method very quickly growing organisms, such as those of the B. enteritidis group, can be isolated and fully tested in forty-eight hours to seventy-two hours from the beginning. The test for indol generally takes the longest time when the old methods are used, but when paradimethylamidobenzaldehyde and potassium persulphate are used according to Böhme's method, twenty-four hours' incubation is generally sufficient (*a*). In badly polluted waters the preliminary culture on bouillon often gives a typical indol reaction before the end of the first day. When the water appears to be fairly pure, larger quantities of it (up to 100 c.c. and sometimes 1,000 c.c.) are used. In such cases bouillon is added to the water in the proportion of 10 to 20 parts of bouillon to 100 of water, or peptone in the proportion of 0·25 to 1 per cent.

The procedure which I have adopted in water examinations is clearly indicated by the headings of two pages of the book in which the results of all bacteriological analyses of water are entered in my laboratory (see scheme of records at the end of the original paper).

Many will think this method more complicated that that based upon the use of the bile salt media introduced by MacConkey some eight or ten years after I had adopted the method which I have just described, but it is easy to prove that this is not the case *if one wants to obtain accurate information.*

If, as is usually done, one adds various quantities of water to the bile salt medium, the occurrence of the acid reaction and gas is often slow, and if one waits for their appearance before proceeding further much time is wasted. The production of acid and gas is not absolute proof that the B. coli is present, and the absence of these reactions is no proof of the contrary. To obtain reliable well-controlled results within as short a time as possible, it is necessary to use the bile salt medium much as I use the alkaline bouillon, but as the MacConkey's medium is less favourable to the development of the Bacilli of the Colon-typhoid group than the simple alkaline bouillon, one may fail to detect the B. coli when it is scanty. I have more than once satisfied myself that this is the case by making parallel series of tests with the same waters. In one series I use my method and in the other MacConkey's, and ascertain in each case the highest dilution in which the B. coli can be discovered. On several occasions I found the B. coli in smaller quantities of water by the simple incubation method than by the bile salt medium.

To compare the two methods I prepared on one occasion a series of dilutions in which 1 c.c. of each of the dilutions corresponded severally to 1/2, 1/10, 1/100, 1/1,000, 1/10,000 c.c. of a polluted water. I added 1 c.c. of each of these dilutions to 5 c.c. of bile salt medium and to 5 c.c. of simple bouillon respectively. The same pipette was used to transfer each dilution to the two media.

After ten hours' incubation I transferred 1 c.c. of the contents of each tube of the simple bouillon series to five new tubes of MacConkey's medium, and I also made litmus lactose agar plates with one loopful of the contents of each of the first two sets of tubes.

After thirty hours there were acid colonies resembling colonies of B. coli on each of the agar plates inoculated with each of the dilutions of the original water up to the 1/10,000 dilution. All the MacConkey's tubes inoculated with 1 c.c. of incubated bouillon showed acid reaction and gas production, except the tubes inoculated with the bouillon corresponding with the 1-1,000 and 1/10,000 dilutions. Of the MacConkey's tubes *to which the original water had been added directly*, only those corresponding to the 1/2 and 1/10 dilutions showed clear evidence of acid reaction and production of gas after thirty hours; those corresponding to the 1/1,000 and 1/10,000 showed no evidence of any change;

(*a*) The reaction is sometimes quite distinct after a few hours' incubation in the case of certain kinds of organisms.

the one corresponding to the 1/100 dilution was turbid, its reaction was doubtful and no appreciable amount of gas could be seen. In a case like this to obtain definite quantitative results by the MacConkey's method, it would have been necessary to begin at the end of thirty hours the confirmatory tests which can be started at the end of from ten to sixteen hours when my simple incubation method is used.

This experiment may be summed up as follows:—

Dilutions.	ORIGINAL SET OF TUBES.		B—MacConkey 37° 30 hours + 1 c.c. Bouillon 42° 10 hours	L.L. AGAR PLATES.	
	A—Bouillon 42° 10 hours	MacConkey 37° 30 hours		C—Bouillon 42° 10 hours	MacConkey 37° 30 hours
1/2	+	A G	A G	+	+
1/10 ..	+	A G	A G	+	+
1/100 ..	+	A ? —	A G	+	o
1/1,000 ..	+	o	A ?	+	o
1/10,000 ..	+	o	o	+	o

+ means uniformly diffused turbidity.
A, acid reaction.
G, gas production.

+ means acid colonies of B. coli type, and found by usual tests to be colonies of typical B.c.c.

I use the MacConkey's medium among other media to test the bacilli isolated by other methods. I do so in order to be able to compare my results with those of other observers who employ MacConkey's method for isolating the B. coli, but for the purpose of discovering this and allied bacilli specially when they are very scanty I much prefer my older incubation method.

OPERATING THEATRES.

HAMPSTEAD AND NORTH-WEST LONDON HOSPITAL.

MR. JACKSON CLARKE operated on three cases of fracture.

CASE 1.—SEPARATION OF THE HEAD OF THE HUMERUS AT THE ANATOMICAL NECK AND OF THE GREATER AND LESSER TUBEROSITIES.—The patient, a stout, middle-aged woman, had fallen heavily on the point of the shoulder six weeks ago. An ordinary forward dislocation was said to have been diagnosed and an attempt made to reduce it in the ordinary way without success. Mr. Clarke made an anterior incision, and, on separating the deltoid from the pectoralis muscle, the long tendon of the biceps was seen dislodged from its groove, but little of the upper end of the humerus was visible. Moderate outward traction on the upper end of the shaft failed to dislodge the upper end of the bone. He therefore defined the coracoid process and detached it by bone forceps in the manner suggested by the late Mr. Keetley. This done, a good exposure of the parts was obtained, and then, starting at the upper end of the bicipital groove, an incision into the capsule of the shoulder joint was made, revealing the head of the humerus loose and turned upside down, and also that the tuberosities were completely detached. The head of the bone was removed and the tuberosities were replaced and fixed by silk stitches to the periosteum and capsule of the joint. The coracoid process was similarly re-attached. and the deltoid and pectoralis muscles replaced and fixed by two catgut stitches. The external wound was then closed.

CASE 2.—FRACTURE OF THE PATELLA.—A heavy man fractured the left patella in the usual way. A transverse flap incision, convex upwards, revealed the seat of fracture; a long tuft of the ligamentum patellæ, comprising about one-fourth of this ligament, was drawn out of the knee-joint. A circular silver wire was first passed and drawn tight in a way the operator had found to succeed in other cases, but on testing the approximation by passing the finger round the side of the patella to its joint surface, it was found that the fragments were so tilted that they did not quite meet. The silver wire was taken out and a thick silk ligature passed in its place, first through the quadriceps tendon at the upper border of the patella, then threaded in and out of the capsule at the inner border, so as not to penetrate the synovial membrane, next through the middle of the upper attachment of the ligamentum patellæ close to the bone, and finally along the outer edge in the same manner as had been done on the inner edge. On tightening this ligature a perfect approximation was obtained. The synovial membrane was then re-united by mattress sutures of catgut, the capsular rents repaired by silk, and the external wound closed.

CASE 3.—A BI-MALLEOLAR FRACTURE AT THE ANKLE.—A heavy man, as the result of a fall, had sustained this common fracture (often mistaken for a Potts' fracture), and there was a considerable amount of deformity and much pain. The region of the internal malleolus was exposed by a flap-incision behind the lower end of the bone. This revealed the interior of the ankle-joint, the tibialis posticus tendon being exposed between the fragments, but it was not displaced forwards. A silver wire was passed beneath the periosteum of the groove for the tibialis tendon, then through the tibia above the malleolus, and lastly the lower end of the wire was passed through the attachment of the internal lateral ligament and twisted off, a groove being cut in the tibia. and the wire twist buried. This restored solidity to the joint, and brought the external malleolus into its proper place, so that it did not require separate fixation.

SPECIAL REPORTS.

INFANT MORTALITY IN LANCASHIRE. (a)

THE perennial perils of the new-born have long been one of the most perplexing problems set before the guardians of our health. The avoidable waste of good human material is appalling.

(a) Forty-third Annual Report of the Local Government Board, 1913-14. Supplement in continuation of the Report of the Medical Officer of the Board for 1913-14. Containing a Third Report on Infant Mortality dealing with Infant Mortality in Lancashire. By the Medical Officer of the Board and by Drs. Copeman, Manby, Farrar, and Lane-Claypon. Pp. vi. and 204. London: Harrison and Sons. 1914. Price 1s. 2½d.

The Local Government Board in its wisdom has issued in the supplement under notice much valuable information from the fountain head of infant mortality, the registration county of Lancashire, which for the period 1901-1910 occupied the worst position in this respect among all the registration counties of England and Wales.

The registration county of Lancashire contains a larger population than any other county in the kingdom, London not excepted. At the census of 1911 its population was given as 4,825,089, exceeding that of the corresponding county of London by over 300,000. Though the infant death-rate of the county as a whole is the worst in the country, its incidence is not uniform; there are bright spots, and it is by studying the circumstances of these divergencies that we may hope to obtain the knowledge of the evil that must be the first step towards its obliteration.

Lancashire has shared in the recent decline in infant mortality experienced by the whole country, and it cannot yet be accurately determined how much of this improvement is due to such measures as improved scavenging and housing, better disposal of excreta and domestic refuse and the increase in such work as health visiting and allied measures for spreading ideas of hygiene among the mothers of the area.

The outstanding feature of the report is the fact that the infant mortality rates are not uniform throughout the county, even in apparently similar areas. For instance, the three neighbouring towns of Burnley, Colne, and Nelson have respective infantile mortality rates of 174, 101, and 91 per 1,000 births. In each of the three towns the circumstances of female employment are similar, and in Burnley the proportion of married women engaged in industrial occupations is not much in excess of that of Nelson, though the infantile death-rate is 90 per cent. greater.

Overcrowding was investigated, which, for census purposes, means a population greater than two for each occupied room of a tenement, and it was found that this did not seem to affect the figures much one way or the other.

The industrial employment of married women, too, has apparently little direct effect on the early death of infants.

Mining districts, with their irregular mealtimes and the possibility of having two male members of a family working on different shifts, are notorious for high infantile death-rates, and in other areas the local standard of cleanliness, care and sanitation seems to be the determining factor.

The fact remains that, during 1913, if Lancashire had shared the average experience of England and Wales 3,041 lives would have been saved, while if the town of Nelson be taken for a standard the 16,183 deaths under one year would have been reduced by no less than 5.112, and there is no reason why this reduction should not take place. The towns of high and low mortality are often close to one another, and their people live similar lives. It is all a matter of care, education, and consequent attention to simple details of sanitation and hygiene.

To-day of all days England needs—and will need more sorely yet—her men. It is in the simple little details that results lie. Much good work is being done by baby clinics and such like organisations, but we should not rest till this outstanding blemish to our credit and our efficiency as a nation is eradicated

CORRESPONDENCE.

FROM OUR SPECIAL CORRESPONDENTS AT HOME.

SCOTLAND.

New Naval Hospital at Queensferry.

This new hospital at South Queensferry, called the Queen Mary and Princess Christian Hospital, has come rapidly into existence, after some seven weeks' labour. It lies immediately to the east of the existing Royal Naval Hospital at Butlaw, South Queensferry. The new hospital is built of brick, wood and iron, and consists of large wards, administrative central building, operative theatre, staff quarters, power station and annexes. The contractors were Messrs. Humphreys, Limited, Knightsbridge, London, and the architect Mr. Fred W. Marks, F.R.I.B.A., London. The first complement of patients, numbering 84, occupied the wards lately for about 24 hours. These were men of the navy, drawn from the ordinary sick and injured on board the vessels of the fleet in the North Sea, and were in no way connected with the war casualty lists. On removal from the hospital they were conveyed to their various home ports, in order to rejoin after convalescence.

Natural History Society of Glasgow.

At the opening meeting of the sixty-fourth session, there was exhibited by Mr. James Simpson, M.A., a specimen of the large spider, Lycosa tarantula, got among bananas in Glasgow. Mr. John Gloag exhibited Hymenophillum unilaterale Willd, the Scottish filmy fern, from Loch Ridden, and for comparison with this Mr. John R. Lee brought forward specimens of the much rarer H. tunbridgense from the same district. Mr. Lee also exhibited specimens of Juncus tenuis Willd from Ardlui, where it was found growing plentifully along the roadsides. This is the second record of the plant for Dumbartonshire. From Heriot, Midlothian, Dr. Johnston Macfie sent specimens of the giant sawfly; and Mr. James Steele exhibited preserved specimens of mountain chickens (giant frogs), Goliath beetles, and young alligators, from Dominica.

Scottish Red Cross.

The Scottish Section of the British Red Cross Hospital in France has now been established. It is on the second floor of the Hotel Astoria in Paris, and it is fully occupied. Paris has now been chosen as the site of the hospital instead of Rouen, on the ground of the German retreat having relieved the French capital from fear of attack. Rouen, however, remains the base for supplies. Dr. Charles Walker, the delegate of the Scottish Branch, has returned to France, and is at present busily engaged in organising work at Rouen and Paris. The provision and equipment of the fleet of motor ambulances which the Scottish Branch is sending to France is proceeding rapidly. The early despatch to the fighting line is anticipated of two Albion ambulance cars, four Wolseley ambulance cars, two Argyll ambulance cars, three Argyll motor transport waggons, six motor cars and three motor bicycles, with appropriate personnel. The first consignment will speedily be followed by others.

Further Arrivals of Wounded.

At Aberdeen 100 wounded soldiers have arrived by hospital train from Southampton, the majority of them injured in the legs. This makes 300 wounded men in Aberdeen. A further 100 have arrived at Stobhill Hospital, Glasgow, making 600 arrivals. Of this 100 the majority are connected with English regiments; while the Black Watch, Scottish Rifles, King's Own Scottish Borderers, 2nd Royal Scots, and the Royal Scots Fusiliers are also represented.

Opening of Winter Session.

The session opens this week at Glasgow University and the Glasgow extra-mural medical schools. At Edinburgh University, which opened last week, a diminution was experienced in the number of students matriculating, and Glasgow must expect a similar diminution, owing to the large number of students who have volunteered for the war. Dr. William Watson, 3 Somerset Place, has been appointed Lecturer on Medicine in the Western Medical School.

BELFAST.

The County Tyrone Hospital for the French.

The St. John County Tyrone Association, of which the Duchess of Abercorn is President, is sending a fifty-bed hospital to Pau at the request of the French Red Cross Society. Three surgeons and ten trained nurses will accompany it, and all surgical and medical stores are being provided for it by funds raised in the county.

LETTERS TO THE EDITOR.

[We do not hold ourselves responsible for the opinions expressed by our Correspondents.]

THE ATTEMPTED GERMANISATION OF LONDON UNIVERSITY.

To the Editor of The Medical Press and Circular.

Sir,—Your leading article of October 7th on the Germanisation of London University is worthy of the serious attention of all interested in higher education. It has always seemed to me as an onlooker that the fundamental defect in the Teutonic system lies in the confusion of the means with the end. So much attention is given to methods that it loses sight of the primary aim of education—namely, to develop each citizen to the utmost of his individual potentiality. If we are to judge a tree by its fruit, German culture has not produced any startling results in the way of great scientific advances. The steam engine, the electric telegraph, chloroform, the aniline dyes, aseptic surgery, and many modern epoch-making advances were not "made in Germany." Koch's identification of the bacillus of tuberculosis was only one of many such discoveries founded on the germ theory of disease evolved by the illustrious Pasteur. It is true that the Germans have produced many synthetic drugs, notably that of salvarsan, a discovery of enormous importance.

It will be indeed a misfortune for our countrymen if in medical education we lose sight of the practical end and aim of medical practice. As things go, the private medical practitioner, upon whom the brunt of everyday sickness and accident must necessarily fall, is a far better man in England than the corresponding German qualified man, although the latter may be and often is stuffed with masses of detailed scientific information. So long as he has the latest views upon a given subject he feels happy, only to be happier when the next learned discussion gives him fresh theoretical vantage ground. Two German medical men will discuss with animation the latest researches upon some polysyllabic, synthetical drug across the bed of their patient, where a practical Englishman would direct his attention to the pulse, the nutrition, and the condition of the lower bowel.

Lastly, our insular system, whatever may be its defects, does not dwarf the humaner virtues at the bidding of a savage, Louvain-sacking materialism. Nor are kindliness, charity, tolerance and loving-kindness to all men incompatible with the highest quality and achievements of genius, as witness the life and character of the late Lord Lister.

By all means let us stick to our insular methods of medical education, perhaps adopting some modification of "high standard examinations, which, in some instances sail parlously near the theoretical whirlpool in which aspiring German youth is destined either to sink or swim."

I am, Sir, yours truly,
David Walsh.

Harley Street, W.
October 10th, 1914.

FORCIBLE FEEDING.

To the Editor of The Medical Press and Circular.

Sir,—I am sorry if I misunderstood Sir Victor Horsley in what to me was a vague and ambiguous statement—namely, "Had he, as myself, read Hansard he would not have repeated the absurdly false statement that the Cat and Mouse Act had succeeded." Sir Victor, I presume, refers to my letter of September 16th, in which, commenting on the Home Secretary's speech, I incidentally remarked "he claimed from those figures the successful working of the Act." These are the only words and in the only sense I can be said to have repeated the "absurd statement," as far as I know, and I do not even now think this sufficient to warrant Sir Victor's statement, which I regard as misleading and exaggerating, although I now understand his meaning and have no desire to quibble.

Sir Victor, with almost theatrical astonishment, now upbraids me for admitting the failure of the Act, whilst, he says, I in the same breath advocate forcible feeding, and he charges me with having confused and inconsistent ideas. On the other hand, I claim that those ideas are simply common sense and rational. It may be recalled that Sir Victor, in his letter of September 23rd last, lays great emphasis on the failure of the Act, and points out that Mr. McKenna's anticipations have not been realised—that is to say, "the Act has not put an end to forcible feeding, neither has it stopped outrages nor compelled prisoners to serve their sentences"; but these are the very reasons which, to my thinking, render forcible feeding necessary to carry out convictions; and, indeed, the Home Secretary safeguarded the Act by retaining the option of forcible feeding if necessary. Why, therefore, does not the Home Secretary avail himself of the means to make the Act a success? But this I have urged before, so surely Sir Victor must see that failure of the Act and forcible feeding are quite reconcilable conditions.

As is well known, the militant suffragists vainly boast that they defy the law. They do not, however, defy the law as decreed through enactment, of which they are as frightened as any ordinary mortal; what they do is to defy individuals such as members of the Government, stipendiary magistrates, and the other highly placed legal functionaries whom they assault, and the reason of their audacity is due to the present Government having robbed the criminal law of its dignity and majesty and deterrent action through this very Act, which makes the administration of criminal law as though a mere personal matter subject to the whim and humour of any Government in office. The Government have forged a weapon by this Act they are afraid to handle, and the militants, well knowing this, rely upon "attempts to commit suicide" as a ready means of escape, while the general public have to pay toll and too frequently at considerable cost.

Sir Victor has more than once referred to Germanic barbarity, comparing it to forcible feeding. On this point I need only remark that, regarding the destruction of property and works of art, the militants were every whit as bad; at any rate, they exhibited the same spirit of revenge as the Germans.

I note that Sir Victor, with commendable candour, if I mistake not, would support militancy even to the extent of obtaining seats in Parliament, but if militancy is to prevail the vote seems scarcely necessary, because if a handful of violent women can obtain one law through violence, why should they not obtain any other law without the vote which they might deem expedient?

I am, Sir, yours truly,
Clement H. Sers.

5 Chanctonbury Road, Hove.
October 9th, 1914.

REPORT OF THE SELECT COMITTEE ON PATENT MEDICINES.

To the Editor of The Medical Press and Circular.

Sir,—Whilst the war continues and Parliament remains in its present plight, it would be absurd to open a campaign for the promotion of medical law reform. When the time arrives the Report of the select Committee will furnish a weapon powerful enough to assure victory, if only the organisations calling for legislation are united and active. The Select Committee ought alone to suffice in the demand for legislation. The Report is unanimous; it demonstrates the nature and magnitude of the evils and abuses it seeks to remedy, and formulates the simple legislation needed to do away with them. The fraudulent nostrum-mongers are not an organised body, nor can they become one. The greater part of them are living by obtaining money under the crudest of false pretences, and very few of them dare come forward to defend their position. The most serious obstacle to reform will come from the passive or active attitude of the newspaper Press. There exists a small minority, headed by the *Spectator*, whose columns are clean, but the great bulk of the papers of every class, including the majority of those that stand in the front rank of journalism, are even now, weeks after the issue of the Report, filling their columns as usual with advertisements of "cures" and of quacks, "swindlers" and "fakirs" exposed and denounced therein in these terms. I myself have during late years been in correspondence with editors and managers of leading papers. They are all fully alive to the foul source of their income. Unfortunately a vast number of medical men are still imperfectly informed upon these facts and my main purpose in writing this, for the moment final, letter, is to entreat your readers to gain the necessary knowledge. The Report costs only 3d. It can be got through any bookseller, or direct from Wyman and Co., Fetter Lane, London, E.C., the Government printers. One shilling will pay for three copies and postages. I have been sending out a large number to medical friends, and have been giving copies to M.P.'s, magistrates, and coroners. If your readers would adopt a similar course they might help to enlighten the intelligent public as to the fraudulent and cruel character of quackery which is exposed with admirable lucidity and brevity in the Report.

I am, Sir, yours truly,
Henry Sewill.

The Old Rosery, Earlswood Common,
October 10th.

THE NATIONAL RELIEF FUND.

To the Editor of The Medical Press and Circular.

Sir,—As we have now reached the £3,000,000 mark, the Prince of Wales will be glad if you will kindly insert the enclosed letter in your next issue.

I am, Sir, yours truly,
Hedley F. Le Bas,
Joint Hon. Secretary.

October 6th, 1914.

Buckingham Palace.
October 6th, 1914.

On the 6th August I appealed to the Nation to assist me in founding a National Fund to prevent and alleviate military and civil distress arising in consequence of the war. To-day, after the lapse of exactly two months, I am happy to say that the Fund has reached the splendid total of three million pounds. I wish to take this opportunity of thanking once more the many thousands of generous subscribers who have helped me to achieve this grand result.

I have delegated the responsibility of administering the Fund to the Executive Committee which I have appointed on the advice of the Prime Minister, and I count upon the Committee to see that assistance in emergency cases is adequate and given with as little delay as circumstances permit. I trust that the portion of the Fund which is to be applied in relief of civil distress may as far as possible flow into productive channels such as assisting schemes for male and female employment and perhaps industrial training; for it is as repugnant to me as it must be to the recipients that assistance should be distributed only in the form of doles. What men most want is work and what young people need is training.

The sum which has already been raised is magnificent, and I am confident that the generous British public will continue to do their utmost to alleviate the distress which war inevitably brings in its train.

Edward.

OBITUARY.

SIR ALFRED THOMSON, M.D.

It is with regret we announce the death of Sir Alfred Thomson, who passed away in a nursing home in Belfast on September 27th. He was born at Ballylesson, County Antrim, 1863, and was the youngest son of Dr. Henry Thomson, of Ballylesson, who practised in Bangor from 1863 to 1880. Educated at the Royal Academical Institution, Belfast, he went to Queen's College and studied architecture and then medicine. He graduated in the Royal University, and in 1891 became M.R.C.S.Eng. His Hospital training was received in Belfast, Dublin and London, and he was for a time Resident Medical Officer of the Belfast Infirmary. In search of health, he went to South Africa in 1894, and became Resident Medical Officer of Kimberley Hospital, leaving to start private practice in Capetown two years later. He was attached to the staff of the Somerset Hospital, and held several Government and company appointments. His great ability, and also his generosity and kindliness, soon brought him to the very forefront, and his recent knighthood was regarded by all as a fitting recognition of the place he filled. Four years ago he underwent an operation in London, and again last July he left South Africa to seek medical advice at home. Another operation was necessary, which was performed in Belfast, and had unhappily a fatal issue. His delightful personality will long be remembered, and his death leaves a gap in South African circles which will not readily be filled. Sir Alfred was unmarried.

DR. E. HOOPER MAY, OF TOTTENHAM.

The medical profession in Tottenham and district have sustained a great loss in the death of one of their oldest friends and colleagues, Dr. Edward Hooper May, Consulting Surgeon to the Prince of Wales's General Hospital, Tottenham, N., which took place on the 23rd ult. at his residence, at High Cross, aged 83. Descended from an old Quaker family, Dr. May was educated privately and at St. Bartholomew's Hospital. He became F.R.C.S.Eng. in 1856 and took the M.D. St. And. four years later. It was largely owing to his efforts that the Tottenham and Edmonton General Dispensary was established, but Dr. May's great life work was in connection with the Prince of Wales's Hospital, of which he was the earliest member of the medical staff in the days when the institution existed for the training of deaconesses under the direction of Dr. Michael Laseron. The Evangelical Protestant Deaconesses' Institution and Training Hospital, to give it its full name, was established in 1867, and this hospital in its early days was staffed by Dr. May in association with Dr. Rasch and Dr. Lichtenberg. It may not be generally known that Lister's treatment and the carbolic spray were employed earlier at this hospital than in any other hospital in London. The rapid growth of the hospital, and its successive changes of title from the Tottenham Hospital to the present one of the Prince of Wales's General Hospital, were a source of peculiar pleasure to Dr. May who watched over its vicissitudes and laboured within its walls so faithfully for upwards of forty years. As a surgeon Dr. May attained a great reputation, his decisions being invariably correct and his treatment fearless yet conservative. With the comfort and after treatment of his cases he was specially concerned, and he would visit a critical case many times unofficially if he thought he could suggest anything further for the patient's relief and well-being. The whole bearing and everyday attitude of Dr. May to his professional colleagues and to his patients was that of the old-fashioned courtly Christian gentleman. No further tribute to his sterling character than this is needed. Much sympathy is felt with the widow and family in the loss they have sustained.

MEDICAL NEWS & PASS LISTS.

Hospital Saturday in London.

The Lord Mayor of London issued the customary appeal through the Press in the interests of Hospital Saturday, which was fixed for Saturday last. He remarked that owing to the splendid manner in which the hospitals are accommodating the sick and wounded from the war, and helping the sufferers in other ways, he would urge upon the public to do their best this year, as the cause is good and the need great. Thousands of ordinary subscribers have joined the colours. Those safe at home, he said, should give for those who are fighting as well as for themselves. It would not be right or fair to withdraw support from the hospitals because one is giving to the patriotic funds. Both should be supported to the very utmost.

Large Benefactions to Dublin Charities.

Mr. Francis Leonard, of 5 South Circular Road, Dublin, retired merchant, recently deceased, left personal estate in the United Kingdom valued at £15,689. By his will the testator made the following among other charitable bequests:—£200 each to St. Clare's Female Orphanage, Harold's Cross, the Mater Misericordiæ Hospital, and the St. Vincent's Hospital, Dublin; £150 each to Our Lady's Hospice, Harold's Cross, and the Jervis Street Hospital, Dublin; £100 each to the Institution of Our Little Sisters of the Poor, St. Patrick's Home, South Circular Road, Kilmainham, the National Lying-in Hospital, Dublin, the Lakefield Orphanage, Sandymount, and St. Joseph's Night Refuge for Homeless Women and Children, Dublin.

Gift from London Panel Practitioners.

As the result of an appeal to practitioners on the London panel subscriptions have been received which will permit the Committee to present the Red Cross Society with a 25 h.p. 1915 Berliet chassis, equipped with a motor ambulance body, constructed to take four army stretchers or to seat 14 wounded men. The equipment includes a dynamo electric lighting set.

University College, Cardiff, Medical School.

At a meeting of the Council of the University College of South Wales on Friday last, it was announced that the anonymous donor whose munificent offer to erect and present to the college a school of preventive medicine and medical school buildings was accepted by the Council in May last, had promised another £10,000 towards the building fund for the completion of the medical school.

Society of Apothecaries of London.

At the primary examination held on October 5th, 7th and 8th, 1914, the following candidates passed in:—

Biology.—C. E. Clarke.

Materia Medica and Pharmacy.—A. M. Berman, C. H. Phillips, A. J. A. Wilson

Anatomy.—A. M. Berman, J. M. Forbes, C. Gilroy-Jones, E. M. Gooda, F. J. Harrington, D. E. Hearn, R. F. Jarrett, H. D. L. Jones, S. Mikhail, J. B. Thomas, L. J. Vincent.

Physiology.—E. V. Beaumont, A. M. Berman, R. F. Jarrett, S. Mikhail, T. F. Reason, J. B. Thomas, L. J. Vincent.

University of Glasgow.

The following have passed the recent final examination for Bachelors of Medicine and Bachelors of Surgery (M.B., Ch.B.):—

With Honours.—James W. Moffatt.

With Commendation.—John B. M'Dougall, Dagmar F. Curjel, Alexander H. Hall, Donald M'Intyre.

Ordinary Degrees.—Grace G. T. Anderson, Andrew D. Blakely, Abraham Blashky, Maurice S. Bryce, John Cameron, James Campbell, Robert Clark, M.A., Andrew Climie, Agnes E. M. Cooke, Jas. P. Crawford, Thos. M. Crawford, Wm. Cullen, Walter T. Currie, Fritz V. Daeblitz, John N. Dobbie, Alexander M. Dunlop, Dugald Ferguson, Thomas Ferguson, James B. Fotheringham, Walter W. Galbraith, John A. Gilfillan, Ethel W. Gompertz, Peter Gordon, Joseph Graham, David C. Hanson, Jos. W. P. Harkness, M.A., Hugh D. M'Crossan, Kenneth N. MacLean, M.A., William Martin, Gladys Montgomery, Laurence S. Morgan, Hugh Quigley, Frederick P. Rankin, B.Sc., Adam Rankine, Robert Ray, Thomas F. B. Reid, James G. M'G. Robertson, John K. Smith, Edward N. Thomson, James Walker, William H. N. White, Marguerite Wilson, John Wylie, Gavin Young, John M. Young, Isabella H. Younger.

Mr. James Wm. Moffat gains the Brunton Memorial Prize of ten pounds, awarded to the most distinguished graduate in medicine of the year.

MEDICAL WAR NEWS.

A Captain in the R.A.M.C. relates his experiences in the *Times*:—

"We had got a school with a private dwelling house next door rigged up as a hospital at ——. We had about 48 cases in hospital at the time—all serious. About 10 a.m. a tremendous explosion occurred about 100 yards away. Almost immediately afterwards several more explosions took place above the hospital, and a wounded officer told us that the Germans had got our range with a battery of siege guns similar to those used at Liége. A moment later a shell struck the far end of the building, instantly killing a patient and severely wounding the two nursing orderlies who were attending him. The room was wrecked, the wall blown in, and the whole building shaken. The place now rapidly filled with men who had been wounded in the vicinity of the hospital. These wounds were terrible. The fragments of shell are burning hot, and they tear and crush. Even the doctors, with their trained eyes, can hardly see them without a sensation of shrinking. I was trying to stop the bleeding of a man whose leg had been shattered close to the groin, when a shell burst outside the window and threw the tables, dressing cases, and stretchers to the ground, filling the room with smoke. The orderly who was helping me was struck on the arm, and in his fall knocked me down. There was a little confusion, but order was quickly restored and the dressing of the wounded continued. Captain —— successfuly performed a tracheotomy on a gunner wounded in the throat. Shells were now bursting regularly about every three minutes. The rush of a shell through the air can be heard for about three seconds before it bursts, and this gives one just time to take what cover is available. The thin walls of the building were a good protection against flying fragments of the shells, but of no more avail than tissue paper against the shell itself. About 11.30 a shell went through the roof without bursting, and almost at the same time one wrecked the kitchen, wounding two more men. Two shells fell into the garden, digging a pit into which you could stand up to your waist. We had finished dressing the wounded, and I was able to look round. Everybody was in his proper place; the officers were reassuring the wounded, the orderlies tidying up and removing soiled dressings, Capt. —— composedly cleaning his instruments. It was now 12, and to our great relief the shelling suddenly stopped. After an anxious interval we began to reorganise the hospital. The *débris* of bricks and masonry was cleared away, the mattresses brought out of the wrecked ward, and another ward established and the patients were fed. At 1 o'clock shelling commenced again, and was for some time directed over our heads, but about 2 o'clock shells were again bursting all around the hospital. The noise was deafening, and the rattle of falling plaster and brickwork and the groans of the wounded were now mingled with the swish of heavy rain and a strong wind. At 3 o'clock a shell struck the first house used as a hospital, bringing down the roof and large blocks of masonry with a terrifying crash. I went in with Captain —— to see what we could do. The wounded had crawled from their mattresses towards the door and begged us piteously to remove them. One man, both of whose legs had been shattered, had just died as he reached the middle of the room. The most shelter was afforded by the back end of the building, which was still standing, and there we took them, trying to reassure them. Shortly after this the shelling became even more terrible. The roof was split open from end to end, and the front garden wall ten yards away disappeared. An ambulance wagon inside was shattered; four horses were killed—all this with one shell. The mortuary—a large outbuilding at the back—was completely wrecked, and another small outbuilding disappeared entirely, leaving nothing but the foundations. We four officers held a little council of war to decide what had best be done. The Germans generally stop shelling at nightfall. We had no orders to move; we had done what we could, and so we waited. The rooms were in semi-darkness, for we had closed the wooden shutters outside as some feeble protection against the flying fragments. The shelling during the last hour was terrific. A curious incident happened when a fragment of shell coming in at a window took the chair on which an A.S.C. driver was sitting clean from under him without hurting him in any way. Shells were now bursting regularly every minute. We looked longingly at the clock, but it seemed to have stopped going. During the last hour we sat waiting for the shell which was to finish us. At 5.20 it seemed to have come. There was a deafening crash immediately behind the hospital, all the shutters instantly opened outwards, and the house was filled with smoke. The rattle of falling masonry continued for two or three minutes and the house trembled from end to end. Then everything became strangely quiet. We looked at each other with one question in our faces, but no more shells came. We began to talk to each other again—all very quiet and subdued. After a little time food was served out to the patients. Then the dead were collected and removed. An A.S.C. driver was in a corner crying. All his horses had been killed. After the dead had been removed from the hospital arrangements were made to evacuate it as soon as possible. It was a merciful thing indeed to have escaped, but of one thing we were glad—at no time was there any panic, and whatever we may have felt we had managed to cheer our patients and keep hope alive throughout this terrible day."

Dr. Leonard Owen Taylor, who has been promoted to be Captain since he went to the front, has contributed some interesting letters to the *Nottingham Guardian*. He says that the battle of Mons was much bigger than those in the firing line imagined, and that the attitude of the wounded was wonderful, and that the wounds of the Germans are more severe than those of our men.

"The cavalry brigade to which Captain Taylor is attached is resting at a farm with their horses after their terrible hard work up to the time that the Germans determined to hold their present fortifications facing the allies. On the day before his last letter he had been under fire with the wounded, and had finally been placed in charge of a church holding about 1,000 wounded prisoners, who he says presented the most dreadful sight he has ever seen. Captain Taylor speaks very highly of the excellent way in which the commissariat is managed, motor lorries coming up by night with provisions, consisting of plenty of canned meat, biscuits, ham, bacon, cheese and tobacco. He also adds that the medical equipment is perfect, so that everything possible can be done for the wounded, and it is quite evident from his latest letters that our forces are more and more confident of that success which the latest French Government despatches lead us to believe will soon be ours."

MEDICAL WAR ITEMS.

The Egyptian Red Crescent Society, of which Prince Mohamed Ali is president, has contributed £E1,000 to the funds of the British Red Cross Society.

The War Office have accepted 10 beds at the Royal Westminster Ophthalmic Hospital for the use of the wounded suffering from injuries and diseases of the eye.

It is reported from Paris that the Union of the Women of France has inaugurated a service of hospital barges for the wounded. Thus the splendid system of waterways in Northern France will be utilised. The barges will carry surgeons and nurses and form floating hospitals which can easily be moved about. Severe cases can have immediate attention in favourable circumstances.

The first barge was presented last week. It is named "L'Ile de France." It will accommodate 40 wounded men and two surgeons. It is believed that it should make the journey from the front to Paris in less than three days. This scheme deserves every encouragement and will be widely extended.

An appeal was issued last week by Lord Roberts on behalf of the Indian Soldiers' Fund, the objects of which are:—(1) To provide for our Indian soldiers, who may be wounded or fall sick in this war, a hospital in a warm climate in which they will be able to regain health and strength so as to return, either to the front completely cured or to their own country happy and in good spirits; and (2) to provide comforts for the Indian soldiers while in the field, and to replace the warm clothing with which they will start fully supplied, but in regard to which losses must inevitably occur. With the approval of the Viceroy of India and the Secretary of State, the St. John Ambulance Association has appointed a sub-committee constituted as follows:—Sir John Hewett (chairman), Col. Sir T. Wynne (vice-chairman), Lord Roberts, Adeline Duchess of Bedford, Lady Lansdowne, Lady Scarbrough, Lady Minto, the Maharani of Bharatpur, Lady Ampthill, Lady Sydenham, the Hon. Lady Lawley, Lady Perrott, Lady Dane, Lord Curzon, Lord Harris, Lord G. Hamilton, Gen. Sir A. Gaselee, the Agha Khan, Lieut.-Col. Sir R. Temple, Sir H. Perrott, Sir Mortimer Durand, Surgeon-Gen. Sir R. Havelock Charles, Sir D. Yule, Sir J. Stanley, Lieut.-Col. Sir J. Dunlop Smith, Lieut.-Col. P. F. O'Connor, Mr. Ratan Tata, and (hon. secretaries)—Mr. P. D. Agnew and Mr. E. H. Blakesley.

It is proposed to establish a hospital of 500 beds at Alexandria and a smaller subsidiary hospital at Marseilles.

It is announced that Mr. Oliver Williams left London recently for Paris with 33 nurses of the Allied Forces Base Hospital, the equipment of which has been carried out by Messrs. Harrods, who have also undertaken to do the catering on the Continent. Lady Sarah Wilson, one of the principal organisers of the hospital, preceded the staff a few days ago to make preliminary arrangements for their arrival. Further subscriptions are urgently needed, and may be sent to the Hon. Treasurer or Secretary, the Allied Forces Base Hospital, 16, Grosvenor Street.

Dr. Louisa Garrett Anderson and seven English lady doctors have organised a military hospital in Paris. The hospital is "manned" by women. The entire staff is composed of women. It contains 70 beds, and is doing excellent work.

Actuated by deep sympathy for the wounded of the Russian Army and by the desire to alleviate their sufferings and save valuable lives, a new field ambulance service has been formed in the City of London, to provide first aid especially for the cavalry of the Russian Army. This highly mobile force is now served by primitive horse ambulances, which cannot keep pace with it in its operations, consequently the wounded remain for longer periods unattended and suffer more than any other soldiers. It is purposed in the name of the City of London to inaugurate this new service for the most advanced fighting line, and present a number of high-speed modern motor ambulances to H.I.M. The Empress of Russia, to care for the cavalry wounded. This movement is being well supported and a corps of efficient men have volunteered as chauffeurs and attendants. The Lord Mayor and others associated with this presentation are appealing for funds, particularly to those having affiliations or business relations with Russia. It is intended to purchase and maintain in the field for three months as many units as possible, each consisting of ten ambulances. After this date, the Russian Red Cross Society will defray all further expenses of maintenance.

The office of the Committee is at 33, St. Swithin's Lane, E.C.; Honorary Secretary, W. E. W. Hall.

NOTICES TO CORRESPONDENTS, &c.

☞ Correspondents requiring a reply in this column are particularly requested to make use of a *Distinctive Signature or Initial*, and to avoid the practice of signing themselves "Reader," "Subscriber," "Old Subscriber," etc. Much confusion will be spared by attention to this rule.

SUBSCRIPTIONS.

Subscriptions may commence at any date, but the two volumes each year begin on January 1st and July 1st respectively. Terms per annum, 21s; post free at home or abroad.

Foreign subscriptions must be paid in advance. For India, Messrs. Thacker, Spink and Co., of Calcutta, are our officially-appointed agents. Indian subscriptions are Rs. 15.12. Messrs. Dawson and Sons are our special agents for Canada. For South Africa, The Record Publishing Co., Cape Town. Messrs. Geo. Robertson and Co., of Sydney and Melbourne, are our special agents for Australia.

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For One Insertion:—Whole Page, £5; Half Page, £2 10s.; Quarter Page, £1 5s.; One-eighth, 12s. 6d.

The following reductions are made for a series:—Whole Page, 13 insertions at £3 10s.; 26 at £3 3s.; 52 insertions at £3, and pro rata for smaller spaces.

Small announcements of Practices, Assistancies, Vacancies, Books, etc.—Seven lines or under (70 words), 4s. 6d. per insertion: 6d. per line beyond.

CONTRIBUTORS are kindly requested to send their communications, if resident in England or the Colonies, to the Editor at the London office, 8, Henrietta Street, Strand; if resident in Ireland to the Dublin office, in order to save time in reforwarding from office to office. When sending subscriptions the same rule applies as to office; these should be addressed to the Publisher.

ORIGINAL ARTICLES OR LETTERS intended for publication should be written on one side of the paper only and must be authenticated with the name and address of the writer, not necessarily for publication, but as evidence of identity.

REPRINTS.—Reprints of articles appearing in this JOURNAL can be had at a reduced rate, providing authors give notice to the publisher or printer before the type has been distributed. This should be done when returning proofs.

DR. C. L. (London, W.)—Communication received too late for insertion in the present issue.

THE RESEARCH DEFENCE SOCIETY.

WE are asked to announce that, in view of the publicity now being given to the question of preventive inoculation against typhoid fever, the Research Defence Society are prepared to furnish supplies of a leaflet entitled "Protection against Typhoid Fever," which describes in simple language the rationale of the process. The Society is further making arrangements for providing the treatment *free of charge*. Applications may be addressed to the Hon. Sec., Research Defence Society, 21, Ladbroke Square, London, W.

MR. H. G. (Nottingham).—According to the new statute of the Elementary Education (Defective and Epileptic Children) Act, 1914, a local authority may, after consultation with the parents of a mentally defective or epileptic child over seven years of age, require such parents to send the child to a certified class or school suitable for it, if they are satisfied that provision is not being made for the child's education.

Meetings of the Societies, Lectures, &c.

WEDNESDAY, OCTOBER 14TH.

HUNTERIAN SOCIETY (Barbers' Hall, Monkwell Street, E.C.).—8.30 p.m.: Council Meeting. 9 p.m.: Hunterian Society Lecture: Sir Dyce Duckworth, Bart.: The Patient and the Disease.

SOUTH-WEST LONDON MEDICAL SOCIETY (Bolingbroke Hospital, Wandsworth Common, S.W.).—9 p.m.: Dr. A. Whitfield: Lichen Planus, its Varieties and Treatment. (Lantern Demonstration.)

FRIDAY, OCTOBER 16TH

ROYAL SOCIETY OF MEDICINE (SECTION OF ELECTRO-THERAPEUTICS).—8.30 p.m.: Discussion on "The Localisation of Foreign Bodies," to be opened by Sir James Mackenzie Davidson, M B., illustrated by means of skiagrams, etc.

ROYAL COLLEGE OF SURGEONS OF ENGLAND (Lincoln's Inn Fields, W.C.).—Museum Demonstrations for Advanced Students and Medical Practitioners. 5 p.m.: Prof. A. Keith: Specimens illustrating Gunshot Injuries of the Head—Ancient and Modern.

THE SOCIETY OF TROPICAL MEDICINE AND HYGIENE (Rooms of the Medical Society of London, 11 Chandos Street).—8.30 p.m.: "Classification of the African Trypanosomes Pathogenic to Man and Domestic Animals," Surgeon-General Sir David Bruce, C.B., A.M.S.

THURSDAY, OCTOBER 22ND.

HARVEIAN SOCIETY OF LONDON (Stafford Rooms, Titchborne Street, Edgware Road, W.).—8.15 p.m.: An exhibition of clinical cases will be held in the Society's rooms.

Vacancies.

Abbeyleix Union. Medical Officer and Medical Officer of Health.—Salary £130 per annum, with addition of £20 a year as M.O.H. Applications to Michael Maher, Clerk of Union. (See advt.)

Hulme Dispensary, Dale Street, Stretford Road, Manchester.—Wanted a House Surgeon, duly registered and fully qualified. Salary 180 per annum. Annual increase £10 to £200, with apartments, attendance, coal, and gas. Applications, with testimonials, at once to Honorary Medical Secretary. (See advt.)

Bristol City Asylum, Fishponds.—Second Assistant Medical Officer Salary £250 per annum, with furnished apartments, board, washing, and attendance. Applications to the Medical Superintendant.

Swansea Union.—Resident Assistant Medical Officer. Salary £295 per annum Applications, Llewn Jenkins, Clerk, Union Offices, Alexandra Road, Swansea.

Royal Sea Bathing Hospital for Surgical Tuberculosis, Margate.—Resident Surgeon. Salary £150 per annum, with board, residence, and laundry. Applications to the Secretary, Royal Sea Bathing Hospital Offices, 13, Charing Cross, London, S.W.

West Riding Asylum, Wakefield.—Assistant Medical Officer. Salary £200 per annum, with apartments, board, washing, and attendance. Applications to the Medical Director.

Corporation of Manchester.—Assistant Tuberculosis Officer. Salary £350 per annum. Applications to the Chairman of the Sanitary Committee, Civic Buildings, 1, Mount Street, Manchester. Thomas Hudson, Town Clerk, Town Hall, Manchester.

Nottingham General Hospital.—Senior House Physician. Salary £120 per annum, with board, residence, and laundry in the Hospital. Applications to the Secretary. E. M. Keely, Secretary.

Kent County Asylum, Chartham, near Canterbury.—Junior Assistant (Third) Medical Officer. Salary £250 per annum, with furnished quarters, attendance, coal, gas, milk, garden produce, washing, and board. Applications to Medical Superintendant.

Manchester Northern Hospital for Women and Children, Park Place, Cheetham Hill Road.—House Surgeon. Salary £120 per annum, with apartments and board. Applications to Mr. Hubert Teague, Secretary, 38, Barton Arcade, Manchester.

Leicestershire and Rutland Mental Hospital, Narborough, near Leicester.—Junior Medical Officer. Salary £200 per annum, with board, lodging, and washing. Applications to W. J. Freer, Esq., 10, New Street, Leicester.

Ramsgate General Hospital and Dispensary.—Resident House Surgeon. Salary £120 per annum, with board, residence, and laundry. Applications, Capt. Bateman, Secretary, Ramsgate Dispensary, Broad Street, Ramsgate.

Appointments.

CARLOW, WALTER W., F.R C.S.Edin., Temporary Assistant Surgeon to the Royal Infirmary, Edinburgh.

DOLAN, CHARLES, L.R.C.P. and S.Edin., L.F.P.S.Glasg., Dispensary Medical Officer for Ballinamore, County Cavan.

EVANS, D. A., L.R.C.P. and S.Edin., L.F.P.S.Glasg., House Surgeon at the Herefordshire General Hospital.

GRAHAM, JAMES M., F.R.C.S.Edin., Temporary Assistant Surgeon to the Royal Infirmary, Edinburgh.

JARDINE, FRANK E., F.R.C.S.Edin., Temporary Assistant Surgeon to the Royal Infirmary, Edinburgh

McGRATH, P., L.R.C.P. and S.Irel., D.P.H., Certifying Surgeon under the Factory and Workshop Acts for the Ardagh District of the county of Limerick

RITCHIE, J., M.D., C.M.Aberd., D.P H., Medical Officer for Buchan Combination Poorhouse, Maud.

WEBB, C. C., M.B., B.C.Cantab., D.P.H., Certifying Surgeon under the Factory and Workshop Acts for the Yatton District of the county of Somerset.

Births.

CARSWELL.—On October 10th, at 61 West Side, Wandsworth Common, the wife of Robert Carswell, M.A., M.B., Ch.B., of a daughter.

CLARKE.—On October 8th, at Essendene, Stourbridge, the wife of H. H. R. Clarke, M.R.C.S., L.R.C.P., of a daughter.

CUNNINGHAM.—On October 6th, at 27 Weymouth Street, W., the wife of J. F. Cunningham, F.R.C.S., of a daughter.

DARTNELL.—On October 5th, at Castlemede, Florence Road, Southsea, the wife of Fleet-Surgeon L. E. Dartnell, R.N., H.M.S. "Africa," of a daughter.

MANSEL.—On October 9th, at Brentwood, Essex, to Dr. and Mrs. Charles Mansel—a daughter.

MARSHALL.—On October 7th, at Shanghai, China, the wife of Dr. R. J. Marshall, of a daughter.

Marriages.

BALLANCE—TROWER.—On October 6th, at All Saints, Norfolk Square, Alerio Charles Ballance, M.B., B.Ch.Oxon., Surgeon, R.N., only son of Mr. and Mrs. Charles Ballance, of 106 Harley Street, to May, only daughter of Mr. and Mrs. Walter Trower, of 11 Talbot Square, Hyde Park.

BOWEN—CLARK.—On October 8th, at Christ Church, Harrogate, William Henry Bowen, M.S., F.R.C.S., Lensfield Road, Cambridge, to Kathleen Edith Clark, Park View, Harrogate.

GARDEN—BARRY.—On October 8th, at Oxted Parish Church, Alistair Sim Garden, M.B., Ch.B., of Colombo, to Gladys, younger daughter of Mr. and Mrs. Horace Barry, of Home Place, Limpsfield, Surrey, and Youlgrave, Derbyshire.

PENNY—PORTER.—On October 7th, at Christ Church, Cockfosters, Middlesex, Charles Harry Greville, R.A.M.C., M.R.C.S., L.R.C.P., L.D.S.Eng., son of C. Hall Penny, Esq., M.D., Perran, Lancaster Avenue, Hadley Wood, N., late of Enfield, to Kathleen Elise, second daughter of Mr. and Mrs. John Porter Ravenhill, Greenisland, Co. Antrim.

Deaths.

GREENFIELD.—On October 11th, in Edinburgh, Amy Winifred, daughter of Emeritus Professor Greenfield, M.D., of Kirkbrae, Elie, Fife.

LAING.—On October 8th, at his residence, 14 Tideswell Road, Putney, Alfred William Laing, M.R.C.S.Eng., L.R.C.P Lond.

LENTAIGNE.—At the battle of the Aisne, September 14th, Victor Aloysius Lentaigne, 2nd Lieutenant Connaught Rangers, youngest son of Sir John Lentaigne, F.R.C.S.I., 42 Merrion Square, Dublin, aged 21 years.

ROGERS.—On October 4th, at Springfield, Tuckenhaye, Totnes, S. Devon, Dr. Cecil Rogers, aged 76.

HULME DISPENSARY.

DALE STREET, STRETFORD ROAD, MANCHESTER.

WANTED, a HOUSE SURGEON duly registered and fully qualified. Salary £180 per annum. Annual increase £10 to £200, with apartments, coal and gas. Applications, with testimonials, at once to Honorary Medical Secretary.

THE MEDICAL PRESS AND CIRCULAR.

"SALUS POPULI SUPREMA LEX"

VOL. CXLIX. WEDNESDAY, OCTOBER 21, 1914. No. 17.

NOTES AND COMMENTS.

Temperance and the War.

THE marked advance of temperance principles in the present war has been already commented upon in these columns. Londoners have always enjoyed the privilege of keeping their public houses open an hour later than the time fixed in the provinces. That tradition, however, has been rudely disturbed by the Licensing Authority, which not long ago decreed that licensed houses were to be closed at 11 p.m. The experiment appears to have answered its purpose satisfactorily, for, on the 15th instant, a special meeting of the Authority decided that from the 19th all licensed houses in London should close at 10 p.m. It appears that the Licensing Authority administers the Act in conjunction with certain other authorities, and the curtailment of hours has the agreement of the Home Office and the Police. Another step which has for a long time been favoured by the Licensing Authority is the postponement of the opening hour for the sale of intoxicant liquors to 10 a.m. It is interesting to note that the curtailment of hours applies to private clubs, whereby any appearance of class favouritism is avoided.

A Temperate Army.

ALL this means a victory for the temperance cause. The shortening of hours on licensed premises was in any case sooner or later a foregone conclusion, but it can hardly be questioned that its present consummation has been mainly due to the advent of the war. It was found in various parts of the Kingdom that alcohol was responsible for a deal of trouble amongst the mobilised troops and the recruits of the new army, and a general early closing order was adopted in all parts of the Kingdom. So far as our army is concerned, both at home and in the field, strict temperance, or, for the most part, abstinence, is the order of the day. There can be no doubt as to the part played by alcohol in military crime and disorder in times of war no less than of peace. There is evidence to show that much of the barbarity that has disgraced the German army for ever in the history of nations has been due to indulgence in strong drink looted by the soldiers. The fact that the British Army has followed the fashion of sobriety set by other classes of the community marks one of the final triumphs of a great social reformation. A late conversion to the temperance movement is that of the Kaiser, who has issued an order to the German soldiers to drink no more wine!

Gratitude of a "Nervous" Patient.

AN instance of startling ingratitude to a medical man was disclosed in the Newcastle County Court. A Ryton turner and his wife were sued for £38 6s. 6d. medical fees. It appears that defendant secured £300 damages from the Newcastle Corporation on account of his wife, who had fallen from a tramcar and injured her spine. Of the sum mentioned £250 was awarded for general and £50 special damages, the latter including doctor's fees £29 12s. 6d., the balance of the claims being made up by special consultations and reports, whereby the defendant won his case. His plea was that being in a medical club the attendance was covered by the subscriptions. In the witness box he trembled violently and was so nervous that the case was stopped for several minutes at a time. At length, trembling violently, he asked the judge whether he "would make it second division," thereby clearly announcing his own view as to the punishment best fitted for his particular crime. The judge observed that there was no defence to the action, and declared in favour of the medical man. Defendant, who was said to have done no work since he won his suit against the Corporation, declared that all the money was gone. The obvious reflection arising out of this case is that money earmarked for medical fees should in future be paid into Court. Lawyers take care to deduct their fees before handing over damages to their clients: why should not a solicitor be similarly careful in securing payment of medical fees?

Trial of a Faith Healer.

THE trial of Orlando Edgar Miller was opened on Tuesday last at the Old Bailey. The charge was that of the manslaughter of Miss Kate Addison-Scott. The facts of the case, as stated by Mr. R. D. Muir, counsel for the prosecution, were that "Dr." Miller received patients for payment at his house, which was known as the Miller Institute. Miss Scott suffered from paralysis and attended lectures given by defendant on "Higher Thought and Faith Healing," and it was alleged that as a result she entered the Institute, where she was treated by a dangerous drug—hyoscine. Miss Scott died five days after admission, and was not attended by a medical man until the afternoon before her death. As the case is *sub judice* at the time of writing, no comment can be made at present. Our attention, however, has been called to a rumour that a qualified medical practitioner has taken over the management of the "Institute" during the past few weeks. Without full confirmation we should be inclined to doubt the credibility of any such report. If such were the case, Dr. Miller's successor would in all probability be called upon to furnish certain explanations to the General Medical Council.

LEADING ARTICLES.

THE SELECT COMMITTEE ON PATENT MEDICINES AND THE PRESS.

One of the many important subjects dealt with by the Select Committee on Patent Medicines is that of the relation of the periodical press to secret remedies. The profits made by the trade in the baser proprietary medicines—which must, of course, be carefully distinguished from the legitimate and reputable class of drugs—are enormous. The report states that the yield of special duties upon patent medicines showed its greatest advance in one year for many years in 1914, when the increase amounted to £31,958. For the year ending March 31st, 1914, the number of medicine stamps issued was 44,427,166, of which 34 millions were for 1½d., nearly nine millions for 3d., and a little over one million for 6d., an increase of rather over 2½ millions in six years. The Customs and Excise cannot form any estimate from these figures as to the total sales. On the assumption, however, that all the 1½d. stamps were put upon medicines retailed at 1s. 1½d. (which is not entirely the case), the sales of them would reach about £1,930,000, and that all the 3d. stamps were put upon medicines retailed at 2s. 9d., the sales of these would be about £1,275,000, or nearly £3,000,000 for these two classes of preparations alone. There is no means of ascertaining the amount of sales of American patent medicines sold in the United Kingdom, but it is known that the amount has increased during recent years, and that it has roughly corresponded to an increased stringency in United States legislation. The report alludes to the fact that the turnover of the proprietor of "Beecham's Pills," selling over a million pills a day, Sundays included, is about £360,000 a year. The proprietors of "Seigel's Syrup," who have sold 100 million bottles in 40 years, pay upwards of £40,000 a year in wages alone. Instances of figures might be multiplied *ad nauseam*, but there is little need to labour the point—*viz.*, that the profits of the trade in the undesirable class of secret remedies are enormous. That proposition being established the next question naturally arises as to how these profits are secured. The answer to that query is "Advertisement—and again—Advertisement—and always—Advertisement." The relation of the newspaper and periodical press to the trade in secret remedies is thereby thrust into prominence. It is no use blinking the fact that without the aid of the public press the patent medicine trade would never have been able to attain its present dimensions. It redounds to the credit of Sir Henry Norman and the Honourable Harry Lawson, both distinguished in the journalistic world and members of the Inquiry, that the matter was fully entered into by the Committee. It is admitted that a sum of £2,000,000 or more is spent annually in newspaper advertisements of the kind under consideration. After remarking that the proprietors of the better class of newspapers and secret remedies alike would welcome a drastic suppression of "suggestive or improper" advertisement, it goes on carefully to exclude from that observation "the advertisements of swindlers like Macaura, the 'eye quacks,' the 'deaf quacks,' the cancer-curers, the consumption-curers, the electric belt makers, the curers of rupture without operation, or 'fakirs' generally." "As regards these classes," says the ingenuous report (p. XI.), "most newspaper proprietors do not regard it as incumbent upon them to test the good faith of secret remedy advertisers any more than advertisers of other goods, though a few of the leading newspapers exercise a very severe censorship upon advertisements of this kind also." This sentence undermines the position of newspaper proprietors, for it makes the cynical confession that they are as a body ready to share in the proceeds of money obtained by false pretences of swindlers like Macaura, cancer-curers, and of other harpies of a like kidney. This apparent laxity, however, is handsomely atoned for in the recommendations, which advise the prohibition of advertisement and sale of medicines purporting to cure cancer, consumption, diabetes, Bright's disease, deafness, epilepsy, rupture and so on. Meanwhile, it is to be regretted that certain leading newspapers are at the present moment inserting advertisements of patent medicines making, obviously, unsupportable claims to cure this, that, or the other complaint. There can be little doubt that were Parliament to pass legislation controlling the advertisement of the disreputable class of secret remedies, it would thereby strike a deadly blow at the root of a nefarious traffic. It is to be hoped that the legislature will deal with the matter in a spirit of thoroughness and fearlessness of opposition by vested interests that has inspired the Select Committee. The social abuse investigated by that body demands speedy and sweeping legislation in a matter vital to the public health of the community.

THE MEDICAL ROLL OF HONOUR.

We regret to announce, as a result of the sinking of H.M.S. *Hawke* by the enemy last week, the following surgeons are missing, and it is feared they must have lost their lives:—Staff-Surgeon George C. C. Ross, Surgeon Gustavus W. M. Custance, and Surgeon Jas. H. Digby Watson. The following medical officer at the front is reported missing: Captain A. D. Fraser, R.A.M.C. Officers previously reported missing, now unofficially reported prisoners of war: Capt. R. J. Coghill, R.A.M.C., Capt. J. H. Graham, R.A.M.C., Major H. W. Long, R.A.M.C., Capt. G. H. Stevenson, R.A.M.C., and Capt. W. I. Thompson, R.A.M.C. Among the South African casualties are reported Capt. W. F. L. A. Holcroaft, S. African M.C., wounded and captured; and Capt. Dalton, S.A.M.C., also wounded and captured. This week a despatch from Sir John French mentions the names of a number of officers and men who have distinguished themselves in the series of arduous battles that have been waged during the past month. The names of the medical men thus honoured are as follows:—

General Headquarters Staff:—
Surgeon-General (temporary) T. P. Woodhouse.

Royal Army Medical Corps:—
Birrell, Major E. T. F.
Bourdillon, Lieut. L. G.
Butler, Major S. G.
Caddell, Capt. E. D.
Cowey, Major R. H.
Dolbey, Lieut. R. B.
Ensor, Major H., D.S.O.
Fielding, Major T. E.
Foster, Major R. L. V.
Goodwin, Major T. H. J. C., D.S.O.
Grech, Major J.
Hairsine, Lieut. C. (Special Reserve).
Helm, Lieut. C.
Hinge, Major H. A.
Hopkins, Lieut. H. L. (Civil Surgeon, since deceased).
Howells, Lieut. W. M.
Huggan, Lieut. J. L. (killed).
Kempthorne, Capt. G. A.
Lathbury, Capt. E. B.
Leckie, Capt. M.
Lewis, Capt. S. E.
Lloyd, Major O. W.
McEntire, Capt. J. T.
Mitchell, Lieut.-Col. L. A.
Morgan, Lieut.-Col. J. C.
Murphy, Capt. J. F. (Special Reserve).
Nimmo, Capt. W. M. (attached 1st Battalion Loyal North Lancs. Regiment).
O'Brien-Butler, Capt. C. P. (attached 5th Lancers).
Osburn, Capt. A. C.
Preston, Lieut. R. A.
Profeit, Major C. W.
Ranken, Capt. H. S.
Sampson, Capt. F. C.
Shields, Lieut. H. J. S.
Stewart, Capt. H.
Ware, Capt. G. W. W.
Wyler, Lieut. (Civil Surgeon).

The following non-commissioned officers and men of the R.A.M.C. have also received the honour of being mentioned in despatches:—

Amsden, No. 16002, Sergt. H.
Anderson, No. 10434, Sergt.-Major H. J.
Bennett, No. 6630, Lance-Corpl. T.
Blair, No. 17843, Staff-Sergt. A. C.
Burstall, No. 2406, Private.
Chatting, No. 2226, Corpl. F. J.
Coad, No. 16396, Corpl. R. H.
Coggin, No. 11141, Sergt.-Major T. E.
Cox, Sergt.-Major R. R.
Cuffley, No. 4158, Private.
Fann, No. 11874, Private H. W.
Gardiner, No. 12,890, Staff-Sergt. J.
Goodwin, No. 6617, Private R. A.
Hasler, No. 10659, Sergt.-Major A. T.
Jonas, No. 12953, Lance-Corpl. J.
Leech, No. 18722, Private.
Lefever, No. 19796, Corpl. G. W., Army Service Corps (attached).
Lockwood, No. 1116, Sergt. J. W.
Loft, No. 10166, Sergt.-Major C. R.
Mears, No. 8722, Private R.
Nicholas, No. 12485, Sergt. E.
Noble, No. 19103, Private H. G.
Nolan, No. 17349, Sergt. R. J. Army Service Corps (attached).
Pettit, No. 19236, Corpl. F. F.
Plume, No. 17421, Corpl. B.
Prince, No. 1305, Sergt. H. M.
Rayer, No. 11224, Staff-Sergt. A. T.
Rideout, No. 19680, Driver D., Army Service Corps (attached).
Spowage, No. 11029, Staff-Sergt. A.
Steel, No. 17568, Quartermaster-Sergt. E.
Stevens, No. 128, Private G.
Sworn, No. 7471, Private R. V.
Turner, No. 309, Private.
Walker, No. 8268, Quartermaster-Sergt. G. B.
Wass, No. 18189, Lance-Corpl.

CURRENT TOPICS.

Medical Attendance upon Dependants of Soldiers and Sailors.

In our issue of September 23rd (p. 321) we referred to the organisation of a scheme for the provision of free medical attendance and medicine to dependants of men serving with the Colours. The arrangements have now been made by the Special Committee (including representatives of the British Medical Association and the Pharmaceutical Society of Great Britain, with the Duke of Devonshire as chairman), which has issued a memorandum explaining the methods of working of the scheme which, we understand, has met with the approval of medical men and chemists throughout the country. Upon being satisfied that an applicant is dependent upon a man serving with the Forces, the Local Representative Committee, or the Local Branch of the Soldiers' and Sailors' Families Association, as the case may be, will issue a Medical Book, with a specimen of which we have been favoured, which will be accepted as evidence of *bona fides* by medical practitioners and chemists who have offered their services, and must be produced whenever medical attendance or medicine is required. The prescriptions for medicine or medical appliances are written in by the medical man in duplicate, after the fashion of the National Insurance forms, one of which is retained by him and the other handed to the patient who takes it to the nearest available chemist. The Medical Book is current for one month from the date of issue, and it may be renewed for a further period. Lists of medical men and chemists who are co-operating in the scheme are being prepared by the Local Representative Committees and will be available for inspection in convenient places which are to be indicated in the Medical Book. Applications for copies of the memorandum or for further supplies of Medical Books should be made to The Joint Secretaries, Naval and Military Dependants (Medical Treatment) Committee, Wellington House, Buckingham Gate, S.W.

The Medical Profession and Gratis Teaching.

It is regarded as a platitude at present that whatever bills are to be paid that of the doctor is left to the last. The patient shows no hesitation in coming to the doctor after being cured to say that owing to the expense of nurses, of extra fires, of extra washing, owing to the amount of work lost by the illness, he really cannot afford to pay the doctor's bill at present. The latter, in the fullness of his sympathy, refrains from the obvious retort "why pay for all the lesser things and not be ashamed to be indebted to the chief factor in your recovery?" The same principle is being put into action in regard to First-Aid Lectures during the present crisis. Medical men along with the community in general are offering themselves and their money for the common good, but they are once more being imposed upon. Their services are asked for as instructors in First-Aid, without reward or price. In Ireland these classes obtain a grant under certain conditions from the Department of Agriculture and Technical Instruction; the committees forming the classes are often composed of wealthy people, and the pupils themselves are many of them well-to-do. Sometimes the medical man is paid—if he be not too diffident—more often he is not. We, therefore, welcome the pronouncement of the Irish Medical Association that "The Irish Medical Association consider that it is contrary to the dignity and interests of the profession for medical men to give ambulance and First-Aid Lectures without reasonable remuneration, especially as committees forming such classes can obtain a grant from the Department of Agriculture and Technical Instruction." It would be a good thing if our charitable ladies and philanthropic gentlemen were to remember that giving lectures is not analogous to knitting socks, nor is the time spent in teaching the principles of surgery to agnostics comparable to the labour involved in writing to the daily papers.

Dead Tired.

A correspondent of the New York *American*, who is also a medical man, recently pointed out some interesting facts he observed in the Brussels hospitals before that city fell into the hands of the Germans. It was in the days when Belgium was putting up her greatest fight against the invader and each man's output of military energy was working at its maximum efficiency. The two things that impressed him most were that the majority of Belgian wounded were shot through the legs, and that a great many men were in hospital who were not wounded at all. The first observation was found to be the result of deliberate intention on the part of the Germans, who were instructed to fire low, probably with the idea that a man wounded in the leg is definitely and suddenly *hors de combat*. The second point, the amount of unwounded sick, was due to men who fell out through acute physical exhaustion. Three months ago we were fond of talking about our strenuous lives and our hustling age, and so forth, and, in fact, cases of chronic exhaustion or overwork were fairly common, but in times of peace one rarely sees the man who works till he drops. Our ordered lives and the edicts of the trade unions did away with that. But in Belgium these men were working and fighting for two tremendous days with hardly a respite—they went on literally till they dropped. Their condition was interesting, but alarming. They were semi-conscious or unconscious, and seemed almost dead. They were pale, limp and cold, and the lamp of their life burnt very dim. Under treatment recovery is the rule, and it is not protracted. In a few days men laid out in this way are quite well again and longing to go back to duty once more. War is an unsettler. We see that we lived largely in a land of velvet makebelieve which has been transformed into a grim battlefield of courage and efficiency. To see most people work one would hardly think it possible for the will to force a man to his last gasp. But to-day our metaphors have become literal facts.

Sodium and Potassium.

Amongst all the salts that find their way into prescriptions those of sodium and potassium are the commonest. And the potash compounds are in more general use than those of sodium. The carbonate, iodide and bromide of potassium occur with unvarying frequency, while the corresponding salts of sodium are comparatively neglected. Why this predilection takes place it is hard to say. Sodium and potassium salts are prescribed not for the bases but for the effect obtained from the contained radicles—bromide, iodine and so forth, and any effect obtained from the one may be equally well got from the other. Now, owing to the war, there is a shortage of potassium, while the supply of sodium is unlimited. We must remember, then, that for every therapeutic purpose the customary potassium salt can be replaced by the corresponding sodium compound. Indeed, the sodium salt is preferable. The potassium ion has some depressing action on nerves and heart, while the sodium ion is absolutely inert. The doses, too, are almost identical for each pair of compounds, and either could be substituted for the other without any inconvenience. We should have used sodium long ago, because it is better. Now we must use it because we shall hardly be able to get the other. Necessity will make us do what we should have done long ago for other ends. It is often the way that we slip into a groove without first making sure that it is the best groove, and once in nothing but a cataclysm or a rise in price will make us budge. Now we have both our minds are open to new ideas and our pockets to increased expense. We can soothe them at the same time if we remember while prescribing that though K is a good dog, Na is a better.

Fighting the Tsetse Flies.

The war against the tsetse fly is one of extermination, and step by step science is improving her methods of attack, witness the recently-published evidence of the Select Committee. Opinion is not generally agreed as to the desirability of fencing in large tracts of country and destroying the game therein, although it is a well-established fact that there is a close relation between wild animals and the infecting fly. Several witnesses were in favour of attacking the fly itself. The *Glossina palpalis* is a slow breeder, in marked contrast with the common house fly, which is a most prolific creature. Experiments have been made on the Island of Principe by making a certain number of natives wear black clothes smeared with bird-lime. In that way some 95,000 flies, or over 500 a day, were caught during the last six months of 1912. There certainly seems good ground for conducting the experiment on an extensive scale. Unfortunately this particular plan appears to be less satisfactory when tried against the *Glossina morsitans* of German East Africa, but it is possible that modifications of method might produce better results. It has been also suggested that large numbers of fly-boys should be engaged at a small rate of payment depending on results. The question of immunity has yet to be worked out. Certain animals—cattle, sheep and goats—appear to have become tolerant of the presence of the trypanosomes constantly injected into them by the local tsetse flies. A not unpromising field of treatment by serum or vaccines may be opened up in that direction.

The Dangers of the Drug Habit.

A highly necessary warning as to the dangers incurred through the habit of promiscuous drug taking was uttered by Dr. Robert Armstrong-Jones at the last meeting of the Society for the Study of Inebriety. The causes, or as it is now more fashionable to say, the contributory factors or adjuvants, of the vice of secret drug taking are many and varied. Present-day observations go to show that since the war began there has been a marked increase in the number of cases of insobriety among women, partly owing to grief and distress and partly to the fact that more money has been available for this purpose. The general love of pleasure and the natural desire to drown the cares and anxieties of the present crisis are also, no doubt, largely responsible for the growth of the habit. It cannot be denied either that the great ease with which narcotic and stimulating drugs are obtainable and the growing practice of flying to these "helps" for every trivial disorder without medical advice are likewise characteristic of the present age. The casual self-prescriber of morphia or cocaine never dreams that his one act of self-indulgence may ultimately cost him his mental independence and even his sanity, and yet the records of medical men and of the coroners' courts show only too plainly that such is the case. The downward path is pursued with an altogether unexpected swiftness, while the destructive effect upon the morale of the victim is complete. Unfortunately the habit has not infrequently been directly acquired as the result of a medical prescription, and, what is worse still, medical men, dentists and nurses who are constantly handling these drugs occasionally become habitués themselves. The best brain workers among the community, including the most cultured and artistic, also figure largely among the victims. As Dr. Armstrong-Jones pointed out, further restrictions of the sale of dangerous drugs is urgently needed in the interests of the public, and when the present crisis has passed it is to be hoped that the attention of the Privy Council may be directed to this important matter.

The Prevention of Post-Operative Discomfort.

For a surgical operation to find acceptance with the patient and his friends it must not only fulfil the purpose for which it was undertaken, but it should also cause the minimum amount of pain and inconvenience in the course of the after-treatment. It may be urged that this is largely dependent upon the skill shown by the nurse in charge of the case, and medical men will be the first to acknowledge the importance of this factor. At the same time there are many ways in which the surgeon himself, both prior to the operation and also at his subsequent visits to the patient, may be the means of preventing much discomfort, if not actual suffering. These were outlined the other day by Mr. Aslett Baldwin, F.R.C.S., in his presidential address delivered before the West London Medico-Chirurgical Society and published in the *West London Medical Journal.* The most important method of preventing discomfort after an operation is the abolition, as far as possible, of shock. This can be carried out by the systematic blocking of nervous impulses by local infiltration-anæsthesia, after the manner devised and elaborated by Crile, whose principles of anoci-association are now well known to the medical profession. The preparation of the wound, once a truly formidable proceeding, is now reduced to the simplest proportions, a preliminary painting with iodine being frequently all that is necessary. Thirst after abdominal operations may be prevented by filling the abdomen with warm normal saline solution. Dressings are fixed with collodion at a short distance from the wound, instead of over the wound itself. A far greater latitude of posture and bandaging of parts may also be permitted as compared with the practice adopted by surgeons fifteen or twenty years ago. In fact, it is the attention to small details that ensures a pleasant convalescence from any operation and renders the life of the patient as agreeable as possible under the circumstances.

Vitamines.

One of the most interesting applications of the "newer physiology" to medicine and the cure of disease is the recognition of the fact that something more than a calculated quantity of protein, fat and carbohydrate, in addition to salts and water, is needed to preserve that perfect balance of nutrition which is characteristic of sound health. To Casimir Funk belongs the honour of having described those mysterious bodies, known as vitamines, the absence of which from an apparently ideal diet is provocative of disease. The so-called "deficiency diseases," which include beri-beri, scurvy, pellagra, and rickets, can, in the light of modern research, be traced to the absence of an essential material from the diet. In the case of beri-beri the results of experiments upon pigeons show that the birds develop polyneuritis when fed upon polished rice and recover rapidly when given the mysterious "something," or vitamine, extracted from rice bran. Dr. H. W. Bywaters, in discussing the matter in *Science Progress*, points out that the anti-beri-beri vitamine is also present in milk, oats, wheat, barley, maize and beans, in cabbage and other vegetables, as well as in ordinary white bread and ox brain. Chemically speaking, this vitamine is believed to be a mixture or a combination of three substances, one of which is probably allantoin. The vitamine which prevents the onset of scurvy is distinct from that which inhibits beri-beri, being less stable. Experiments upon rats by Hopkins, Osborne and Mendel suggest that an essential growth vitamine is essential for the perfect development of the young organism. Another vitamine seems to be concerned with the pathological growth of tissue, as in cancer, so that the question is raised by Funk as to whether it may not be possible to inhibit this new growth by the exclusion of the special vitamine from the diet. Evidently the fringe of an important subject in animal metabolism has been merely touched, and doubtless fresh revelations will be forthcoming that may prove of some practical value in therapeutics.

PERSONAL.

Prof. Walter G. Smith, M.D., F.R.C.P.I., has been elected President of the Royal Academy of Medicine in Ireland for the ensuing year.

Dr. Robert P. Dawson, J.P., has been selected as the new Sheriff of Newcastle-on-Tyne for the ensuing year.

Miss Ida Clare Tengely, M.D.Lond., has been appointed a School Medical Inspector to the Essex Education Committee.

Mr. Sydney Stephenson, D.O., has been appointed Master of the Oxford Ophthalmological Congress, *vice* Mr. R. W. Doyne, nominated as Past-Master.

The following have been appointed Consulting Physicians with the Expeditionary Force:—Sir John Rose Bradford, Sir Wilmot Herringham, and Sir Almroth Wright.

A portrait-bust in bronze relief of the late Dr. E. F. Trevelyan, formerly Physician to the Leeds General Infirmary, who died in December, 1911, was presented to the institution the other day and was placed in the entrance hall.

Mr. T. Ashcroft Ellwood, M.R.C.S., L.R.C.P., D.P.H., F.I.C., will deliver a lecture on "The Influence of the War on Medicine and Pharmacy" on Wednesday, October 28th, at 8 p.m., at St. Bride's Institute, Bride Lane, Ludgate Circus, E.C.

Sir Arthur Sloggett has not retired on sick leave, as erroneously reported in some quarters, but has gone abroad to co-ordinate the work of the voluntary and the military hospitals in France, a task for which his distinguished service in South Africa renders him peculiarly fitted. His post as Director-General of the Army Medical Service has been duplicated by the reappointment of Sir Alfred Keogh, K.C.B., who held the post from 1904 to 1909.

CLINICAL LECTURE

ON

THE RECOGNITION OF HÆMIC INFECTIONS OF THE URINE: ITS CLINICAL AND EXPERIMENTAL VALUE.

By EDWARD C. HORT, F.R.C.P.Edin.,

Late Assistant Physician, Italian Hospital in London.

It is to-day generally believed, and rightly believed, that the occurrence in man or other mammal of a fever which lasts for days or weeks is in the vast majority of cases associated with the presence of infective disease. So faithful an index, in fact, of the presence in the body of infective agents is continued fever that it is, or ought to be, an immediate signal to submit—whenever practicable—every case in which continued fever occurs to a searching bacteriological investigation, and this whether physical signs other than fever are present or not.

Until this has become a routine practice, and until local laboratories presided over by expert bacteriologists are placed at the disposal of every practitioner in the country, the welfare of the individual and of the community at large is bound to suffer.

It is, of course, true that an immense amount of most valuable work in this direction is already being carried out, but it is also true that there is unlimited room for extension.

Unfortunately, one of the most serious obstacles in the way of routine bacteriological investigations of this nature is, apart from financial difficulties, the technical complexity of the subject, even in the hands of acknowledged experts. And this is particularly the case when the blood has to be examined either culturally or by immediate microscopy. And to this must be added the inconstancy of the results obtained even in the case of unquestionable infections, and the length of time required before a complete report can be given.

In the case of blood examinations, it is indeed a familiar experience that, except in grave septicæmic conditions, and often even then, negative results are frequently obtained when the clinical symptoms make it practically certain that pathogenic organisms, whether as primary or secondary invaders, are circulating in the blood stream. This applies not only to diseases in which the causal organisms are known and are capable of identification, but it applies also to that large group of infections, such as measles, mumps, typhus fever, and the like, in which countless examinations of the blood in various parts of the world have so far failed to unmask with certainty the causal organisms concerned.

Examination of the blood for the presence of pathogenic organisms which can be cultivated in the laboratory is often, in fact, most disappointing, as is universally admitted, and as I can personally testify to. There are many reasons for this, but one of the chief appears to be the high bactericidal power of the blood, which prevents in all but the gravest infections (though there are many exceptions to this rule) the establishment of a blood-fast race which can be easily cultivated in the laboratory.

However this may be, I am satisfied, after study of the relative value of bacteriological examinations of the blood and urine in many hundreds of cases, that we often have in the latter an incomparably better fluid in which to look for and cultivate organisms derived from the blood stream. And this appears amongst other reasons to be largely due to the fact that the bactericidal power of the urine is relatively small. In thus drawing attention to the value of bacteriological examination of the urine as an indicator of infections of the blood stream, I am not suggesting that it should displace examination of the blood or other body fluids. I wish only to insist that it should form an essential part of all routine examinations into the causes of infective disease whenever practicable, simply because if it is omitted an infection of the blood stream may be often missed. And in this connection I may perhaps recall the experiments I published in 1911, in collaboration with Dr. Penfold, on the relationship of micro-organisms to fever, which went far to prove that continued fever is caused by the action of living organisms. Continued fever appears, in short, to be a signal that pathogenic organisms have found access to, and are therefore circulating in, the blood stream. If this be true, it is easy to understand that at any given moment the number of fever-producing organisms capable of cultivation from a sample of bactericidal blood may often be too small to allow of a growth being obtained, and yet that—assuming their ability to pass the renal barrier—the relatively non-bactericidal urine will after some hours' stay in the bladder contain them in sufficiently large numbers to permit of successful cultivation in the laboratory, or even before discharge. And that this does actually occur is often seen in the bacteriurias of certain hæmic infections in which blood cultures cannot be obtained.

That in severe infections primary and secondary infective agents can often be found in, or cultivated from, the urine, even in the absence of demonstrable infective lesions of the genito-urinary tract, is to-day a well attested fact. In the course, for example, of such grave diseases as miliary tuberculosis, typhoid fever, plague, ulcerative endocarditis, Malta fever and erysipelas, bacteriological study of the urine has repeatedly shown that the pathogenic organisms found or cultivated can only have come from the blood stream.

The earliest clinical observers to establish the principle of hæmic infection of the urine appear to have been Kannenberg in relapsing fever in 1880, Philipowicz in tuberculosis, erysipelas, and ulcerative endocarditis in 1885; Neumann, Karlinski and Koujajeff in typhoid fever in 1888, 1890, and 1899 respectively; the absolute identity of the B. typhosus in the urine being reserved for Horton-Smith-Hartley in 1897.

Among the earliest experimentalists to demonstrate in animals the passage from blood to urine of pathogenic organisms, we find Ruffer and Charrin working independently in 1889 with B. pyocyaneus, Staphylococcus aureus and B. anthracis, and, finally, C. S. Sherrington in 1893.

The extensive observations of Wyssokowitsch in 1886 do not come into this category, since he worked mainly with organisms that produced renal lesions. The work of Sherrington, however, in 1893 on the hæmic infection of urine in animals is of particular interest in that he found he could only produce it by injecting pathogenic organisms, and then only after the lapse of a latent period. He also found that such gross damage to the kidney as would allow of the passage of blood was not necessary to establish infection of the urine from the blood stream, though he shrewdly suggested that undetectable damage to the renal barrier was perhaps an essential condition to the passage of the organisms he injected. Cohnheim's view, advanced in 1882, that healthy kidneys would permit of hæmic infections of the urine appears in the light of Sherrington's observations to be a difficult thesis to sustain. None the less, the important fact remains that in certain infections in man and animals the infective agents do find their way into the urine, and that frequently.

In spite, however, of this, the principle of hæmic infection of the urine does not appear to any great extent to have been utilised for purposes of clinical diagnosis, except for the detection of carriers. Even here, however, the earliest date on which cultivation of the infective agents from the urine can be successfully carried out has not been thoroughly investigated, and it opens up a promising field for enquiry. Still less does it appear that a systematic attempt has been made to discover how far the principle of hæmic infection of the urine can be applied to the early diagnosis of common infections, such as influenza, epidemic catarrh, the pneumonias, chronic tuberculosis with its secondary infections, and other diseases in which the causative organisms are well known. And, finally, in those numerous diseases in which the *causa causans* is still unknown little attention has been paid to the possibility that bacteriological study of the urine might reveal the nature of the infective agent.

It is not possible in a communication such as this to bring forward all the evidence that I have been able to collect in my own practice, with the aid of my laboratory colleagues, as to the clinical value of studying hæmic infections of the urine. I can here only say that in such diverse diseases as tuberculosis and its secondary infections, purpura, scarlet fever, mumps, lobar pneumonia, bronchopneumonia, meningitis, acute rheumatic fever, typhus fever, typhoid, infective endocarditis, acute gastric and duodenal ulcer, infective cholecystitis, and pernicious anæmia, the results have been full of interest and promise, as well as in numerous cases of obscure fever in which physical signs were conspicuously absent. And this applies to mild infections as well as to severe.

I propose here, therefore, only to take as illustrations two diseases which I and my friend Dr. Ingram have been studying together for several months, though if time permits I shall refer to cases of other diseases in which a study of the hæmic infections of the urine has given valuable information.

The two diseases I have selected are lobar pneumonia and typhus fever; the first because it is a type of infection in which the causal organisms are in many cases known, the second because it is a type of disease in which the infective agent has not yet been discovered.

In attempting to investigate hæmic infections of the urine in any disease, it is, of course, necessary to exclude, as far as possible, contamination of this fluid with extraneous organisms, pathogenic and non-pathogenic, from the genito-urinary tract, from the genital surfaces, from the air through which the urine is passed or collected, and from imperfectly sterilised receiving vessels. This is by no means an easy matter, and we have been obliged to carry out a large number of control observations which are now in the Press, but are too numerous to detail here. It is, however, necessary to refer to one or two general points.

For example, in the male subject, provided that there is no infective disease of the tract, including the bladder and urethra, the presence of large numbers of micro-organisms in the fresh urine is strong presumptive evidence of hæmic infection in the course of a continued fever, assuming always that the genital surfaces, including the vestibule, have been thoroughly cleansed, and that the receiving flasks are clean and sterile. In the female, even when the urine is carefully collected with a catheter after an efficient preliminary toilet, and even when no disease of the tract is present, the existence of a marked bacteriuria gives no certain indication *per se* as to whether a hæmic infection is present or not, though in these cases the assumption of lymphatic infection of the bladder urine is easier to make than to prove. There is, in short, as Thiele and Embleton have shown, no evidence that infection of this kind does occur apart from actual trauma.

In all our work, therefore, we have, whenever possible, preferred to examine male specimens only.

In cases of marked continued fever it is often, we find, a mistake, if the urine is clear on passage, immediately to inoculate artificial media with samples of the urine itself or their centrifuged deposits. This particularly applies to inoculation of solid media. If, for example, tubes containing nutrient agar are inoculated with small volumes of unincubated urine, or the centrifuged deposits of even considerable volumes of fresh urine, it frequently happens that hæmic infection is missed. This is often due to the small number of organisms present which may easily be passed over when inoculating the invisible centrifuged deposit. And in the case of inoculation of solid media with the urine itself it frequently happens that multiplication will take place in the urine, but that the agar remains uninfected unless precaution be taken to flush its surface repeatedly during incubation. In other cases, however, it sometimes happens that an organism will fail to adapt itself to a new environment, whilst it will multiply with great readiness in the urine itself if this be incubated. In all cases, therefore, in which the urine does not contain organisms in sufficient numbers to be readily recognised by the microscope immediately after discharge, as well as in cases in which large numbers are present, the use of the urine itself as the medium of growth will frequently reveal an unsuspected hæmic infection. We have repeatedly found by this method, which I devised some eighteen months ago, that in many diseases the causal organisms are present in enormous numbers after a few hours' incubation of this fluid. When once firmly established on urine they will often, though not invariably, multiply with readiness on the ordinary artificial media, when they can be studied and identified in the ordinary way. As a result of this observation I have often found that specimens of urine, rich in blood-derived organisms, can be easily obtained by allowing incubation to take place within the bladder. If, for example, a specimen be taken during the day the urine on discharge may be perfectly clear, and yet if the specimen be obtained after several hours' incubation in the bladder it is frequently turbid from the presence of the organism responsible for the fever. After 48 hours' incubation of urine it frequently happens that the organisms present undergo rapid autolysis. As a rule, therefore, incubation is not allowed to proceed for more than 12 to 24 hours.

In a series of 20 cases of lobar pneumonia of the acute type which we studied in the early spring, we found that the urine when collected was often perfectly clear. In other cases it showed varying degrees of turbidity, and in the centrifuged deposits of the fresh turbid specimens we never failed to find organisms which proved to be either capsulated pneumococci either alone, or in combination with the Gram-negative pneumobacilli of Friedlander, or the B. influenzæ of Pfeiffer. In the clear urines, on the other hand, in which prolonged search was necessary to show the presence of organisms, and then not always with success, incubation of the urine for a few hours in no case failed to give us positive results. A marked tendency to the characteristic chain formation in the case of the pneumococcus was usually manifest, and the identity of the organisms mentioned was submitted to the usual laboratory tests in the ordinary way.

The identification tests for the pneumococcus are notoriously unsatisfactory, especially as regards serological and sugar reactions. We have been obliged, therefore, mainly to rely on capsulation and its fugitive nature on laboratory media, the pathogenicity of the organism on injection into mice, its recovery from mouse blood in a capsulated form, and its equivocal behaviour on inulin.

In several private cases of chronic bronchopneumonia we have also been able to demonstrate in, and cultivate from, the urine during the pyrexial period capsulated pneumococci either alone or in combination with Pfeiffer's influenzal bacillus, and in these cases were also able to recover the same organisms from the blood stream and from the sputum, and to identify them after cultivation on the ordinary media. It should be noted that the pneumococcus loses its capsule in urine in a few hours, but again acquires it when subcultivated on blood or on serum, or in the living mouse. The bacterial deposits from our cases of lobar pneumonia were tested in many instances for virulence by injection into mice. In no case did the deposit from the incubated urine when injected direct into mice produce any apparent harmful effect if incubation was allowed for a few hours only. Yet the same organisms when injected after subcultivation in broth or on agar for one night did not once fail to produce death in from 6 to 24 hours, the organisms being subsequently recovered in large numbers from the heart's blood, sometimes immediately after death. This we found also to be true if the injected dose of the subcultivated organisms was many times smaller than that of the organisms taken direct from the urine. It appears, in fact, as if the urine organisms had become avirulent through a form of sensitisation which had been imposed upon them either during their passage through the blood stream in the case of fresh deposits, or in the urine itself after incubation. We therefore applied ourselves to a study of these as vaccines with most encouraging results, which will be recorded in due course, using as our medium of growth either the urine itself, or healthy human blood. In the meanwhile we wish to point out, as I showed in 1911, that organisms are profoundly modified in their antigenic behaviour if they are grown on artificial media after their recovery from the body. They are, in fact, in many cases no longer autogenous. And this has been well brought out by Rowland in the case of plague in rats. If, therefore, these observations are well founded, and our vaccine work in pneumonia and other diseases seem to show that they are, it is possible that vaccines made from organisms grown on artificial media will have to give place to vaccines made from organisms grown on the natural media of the body, to which serum is only an approximation. And there is, we find, some reason to believe that this also applies to bacterial antigen that is employed for purposes of diagnosis.

Finally, we wish to point out that the floral pictures presented by the urine in our cases of lobar pneumonia suggest that pneumococcal antigens are not the only requirements in the specific diagnosis and treatment of this disease, inasmuch as the pneumobacillus frequently appeared in the fresh urine in enormous numbers, suggesting that it was by no means an unimportant factor in its hæmic infection.

(To be concluded in our next.)

Note.—*A Clinical Lecture by a well-known teacher appears in each number of this Journal. The lecture for next week will be by Edward C. Hort, F.R C.P. Edin., Late Assistant Physician Italian Hospital, &c. Subject: The Recognition of Hæmic Infections of the Urine: Its Clinical and Experimental Value."—Conclusion.*

ORIGINAL PAPERS.

THE TREATMENT OF CERTAIN INJURIES AND DISEASES BY BIER'S (ARTERIAL) HYPERÆMIC METHOD.

By ARTHUR HEYS, M.B., C.M.Ed.,
Burnley.

A few words of explanation are necessary to explain the title of this paper. The words "arterial hyperæmia" have been used in contradistinction to the "obstructive" or "venous," the former being produced by means of hot air, the latter by the elastic bandage or some similar appliance. Let me give a brief *resumé* of the principles of Bier's treatment. To employ artificial hyperæmia means to increase the quantity of blood in a given diseased portion of the body, thereby hoping to obtain beneficial results. The task of the blood is to circulate through all the different tissues of the body and to maintain therein the different physiological functions. The blood not only accomplishes this under normal conditions, but tries to adapt itself to abnormal states. As soon as the body is invaded by disease or disturbing external influences, the circulatory conditions become changed. To explain further, a burn may be cited as an example. A hot iron is brought close to the surface of the body. Immediately the skin turns red. This reddening of the skin, according to Bier, represents the body's attempt at protecting the injured part, the accelerated blood-current furnishing increased nutrition in the hour of danger. With the cause persisting, the redness becomes more and more marked, while the sensitive nerves, through the production of pain, bring the danger to the notice of the brain. A large accumulation of serum, in the form of a blister, developing between the layers of the skin, is furnished by the blood as a further protection against the injurious effects of the heat. Analogous work is done by the blood-current in the cases of infectious invasion, where bacterial toxins take the place of the hot iron, as shown, *e.g.*, in the inflammatory redness and œdema of a boil, whitlow, or an insect bite. The same fight of the system against the foe is taking place. The spontaneous disappearance of the inflammation means the victory of the blood-current against the bacteria. Therefore, again, according to Professor Bier, an inflammation in itself ought not to be regarded as a disease, but rather as an attempt of the body to resist the attentions of an invading foe. To increase this inflammatory hyperæmia, resulting from the fight of the living body against the invader, is the aim of Bier's hyperæmic treatment. There are several methods by means of which hyperæmia may be produced: (1) by means of an elastic band; (2) by cupping glasses; (3) by means of hot air. I have had a fairly large experience of the last method, the results of which I should like to bring to your notice. Any part of the body brought near to a source emitting strong heat becomes bright red or hyperæmic. The hyperæmia, however, produced by this method is different from that caused by obstruction. The latter causes what Bier calls a "venous" hyperæmia, the former represents an arterial one. Heat for the production of hyperæmia has been employed as long as the art of healing has existed. It has been used in the shape of poultices, fomentations, sun-baths, sand-baths, mud-baths, and at the present time we find their sequelæ in electric-light baths and Turkish baths, etc. The increased supply of arterial blood to any part of the body favours the absorption of chronic infiltrations, exudation, and adhesions. These chronic conditions, being the result of some prior acute inflammation, are particularly favoured by hot-air hyperæmia. This for a start is a fairly large field for operation. When one considers the number of cases of old-standing arthritis, for example, whether rheumatic, traumatic, or gouty, which are very often difficult to heat by the ordinary methods, one need not be very long before finding suitable cases for hot-air treatment. Again, the second class of cases that can be treated advantageously by hot-air hyperæmia are neuralgias of all varieties. If, as a witty Frenchman has remarked, neuralgia be the "cry of a starved nerve for more blood," there can be no better means of supplying its need than by subjecting it to hot-air treatment. Dry hot air permits the use of very high temperature, without injury or pain to the part to which it is applied. I have often seen the temperature register 250° Fahr., the patient himself feeling the reverse of uncomfortable—in fact, often inclined to go asleep. For practical application in surgery, hot-air ovens or chambers are used and the hot-air douche. The Holborn Surgical Instrument Company of London put up a very useful type, the funnel of which is interchangeable and the heat generated by means of a bunsen burner. They are not expensive, and after a little experience most men will say that it has been money well spent. There are several cardinal rules to be observed in the treatment. The first is, that there must be no pain, or even annoyance, from the heat. The second, a rule I have found to work well, is: the more acute the ailment that is being treated, the lower should be the temperature for a commencement. 180° Fahr. I usually use for a first sitting. Another rule to remember is, that as the temperature of the chambers is highest in the top parts, always use an asbestos toe-cap for protecting the toes in the treatment of the lower limbs.

Again, it is important to remember to turn on the gas and light it before placing it near a closed chamber, or the results might be disastrous to the patient.

Let me mention a few surgical applications where Bier's method is useful.

The powerful effects of the hot-air bath can be made good use of in bringing exudations of blood and serum to rapid absorption.

It was whilst treating a great many football injuries, more particularly cases of blood and fluid filling the various synovial sacs, where rapid absorption was necessary in order to get the player back quickly into the team, that I found that hot-air treatment could do in almost half the time what would be done by older methods of treatment. Thus in contused limbs, traumatic synovitis due to sprains, and other causes, one gets excellent results. Let me give one example. Maclaren, the Burnley player, was brought to me on Monday the 22nd December, 1913, complaining of great pain on putting the foot down. The front of the leg was swollen, tender to touch, and shiny. He had been kicked the Saturday previous in a match, and had had two restless nights. He had the hot-air treatment on the 22nd, 23rd, and 24th. He played on Saturday the 27th at Huddersfield, and was transferred from Burnley to Huddersfield the same day for a record fee.

Another type of injury which I have often had to treat, and which is at times very troublesome, is the stiff joint and œdema of hand or foot which often follows a Colles' or Pott's fracture—perhaps due to faulty *technique*, but there all the same. By subjecting to a fairly high temperature for a week or two the œdema as a rule disappears quickly, the adhesions soften and can often be broken down without the aid of chloroform. Even if the latter be necessary, there is not the same inflammatory exudation after the *brisement force* more particularly if the hot-air treatment be continued immediately after. One often meets in practice, too, obscure joint pains, where nothing abnormal may be detected, but which are there when the patient comes down heavily, say, with one foot. Perhaps "joint neuralgias" would do for want of a better term. These I have several times seen disappear after two or three hot-air applications—and the cures have been permanent.

One often has great difficulty in successfully treating fractures involving the elbow-joint. There is always great risk of stiffness and even ankylosis. By using the hot-air treatment after a week or ten days, fixing the limb alternately in the fully flexed and fairly extended positions, and later perhaps by weighting the arm at night, allowing the weight to hang over the bed, I have had results which have been, I fell sure, better than would have been otherwise the case.

Varicose veins—more particularly those cases where the smaller veins are involved, and where ulceration has not taken place—benefit by hot-air treatment. The œdema usually present yields to the increased circulation, and the other methods of treatment, such as rest, etc., are greatly helped. Even in cases of bad ulceration the base of the ulcer cleans more rapidly and cicatrisation is hastened. Care must be taken in the latter case not to use a great heat for fear of burning (160° is high enough), and to see if there are any signs of a recently formed thrombus. If the latter, hot-air is contraindicated. But it is principally in cases of subacute and chronic rheumatic arthritis that I have had particularly good results with Bier's method. True, the exact cause of same is still a question of great dispute. The fact remains that in many cases hot air has a powerful influence in causing the exudates to be absorbed. Many times have I been able to get rid of a case of rheumatism which has resisted the usual methods and has seemed to be drifting rapidly into the chronic stage. These cases demand time and confidence on the part of the patient, and patience and perseverance on the part of the doctor. Mention has already been made of the neuralgias. By using the hot-air douche (half an hour at a time) many cases of simple neuralgia can be made to yield. In sciatica, where no extraneous causes could be discovered, such as pelvic pressure, rheumatoid arthritis of the hip, etc., I have had varied results. Many have yielded after a few applications, many have gone on apparently no better.

One or two surprising results I have had in the treatment of chronic eczema.

In conclusion, let me add that in Bier's hot-air treatment we have a most powerful and efficient remedy. His theory that by increasing the volume of the blood alone, Nature's remedy, a cure can be often effected, is sometimes somewhat difficult to believe, but is nearly always borne out in actual practice.

Let me here acknowledge my indebtedness to Drs. Meyer and Schmieder for many little helps in the actual working of the apparatus, and for hints from their book in drawing up this paper.

THE PRESENT POSITION OF CEREBRAL SURGERY. (*a*)

By WILLIAM THORBURN, F.R.C.S.Eng.

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It is not my intention to discuss with you to-night the entire field of cerebral surgery, nor do I propose to occupy your time with a mere recital of cases, however interesting, but I shall, in response to the request of your retiring President, try to lay before you a slight general account of what seem to me to be present prospects of surgery in relation to one or two classes of cerebral disease. And I do so particularly for two reasons; on the one hand I have perhaps had more experience of this branch of work than have most of you, and on the other the present moment is, as I shall indicate directly, a peculiarly favourable one for taking stock of our general position. In so doing I shall altogether ignore the more well-worn topics—I shall say nothing of the treatment of head injuries nor of that of the inflammatory affections of the brain, and I shall practically confine myself to the consideration of two main diseases—epilepsy and cerebral tumours. I select these because, although we are all familiar with many published cases—some of them being very brilliant successes—few of us have access to records of any considerable number of cases, and probably few, if any, of you know what may reasonably be hoped for in dealing with them. Operations are still regarded as largely in the experimental stage, and it is only right that we should now attempt to arrive at some general conclusions as to final results and statistical probabilities.

With this object in view I have endeavoured to trace the results of my own work, and before going further I should like to thank my late house surgeon, Mr. Stewart, and my present house surgeon, Mr. Willis, for the great assistance they have given me and for the trouble they have taken in tracing out patients. With their aid, I have collected all the cases of epilepsy and cerebral tumours operated upon by myself from the beginning of the year 1900 to September, 1913, and what I have to say to-night is based upon these cases, and does not refer to any subsequent operations. I only regret that our hospital records are so bad that it is impossible for me to enter into much detail, even did I desire to do so.

EPILEPSY.

We have in surgical literature an almost complete absence of definite information as to the late results of operation for this condition, and in no branch of surgery is it more necessary to ascertain such end-results before we are justified in regarding an operation as curative. It is now perfectly well known that almost any operation may produce a temporary arrest of epilepsy, even apart from the possibility of suggestion. Some twenty years ago, Maclaren of Edinburgh recorded many examples of such arrest, and I have personally seen many cases in which epilepsy has been temporarily kept in abeyance after such surgical procedures as amputations and operations for the radical cure of hernia or even after severe burns, which are not uncommon in the epileptic. Hence has arisen much confusion and false deduction, and we have at times had the most various operations vaunted as curative. We must, therefore, first be very certain that when a direct attack upon the probable focus of the disease appears to have cured it, we are not misled by a mere lull in the symptoms and that we have really done more than has been done in the past by oöphorectomy, ligature of the carotid arteries, or excision of the cervical sympathetic, each of which have in turn had their day as apparent remedies.

The only statistical records of which I am aware

(*a*) An address delivered before the Manchester Medical Society, 1914.

are those of Cushing and of Bathe Rawling. Cushing operated upon 58 cases of traumatic epilepsy and obtained 12 recoveries (20.7 per cent.), and 30 (52 per cent.) which showed more or less improvement, but the longest records were for periods of five years and some had only been traced for twelve months, so that the evidence is inconclusive as to late results. Rawling refers to 20 cases, all of which were also traumatic in origin, and has obtained the following results :—

Cured	2, or 10 per cent.
Markedly improved ..	14, or 70 per cent.
Not improved	4, or 20 per cent.

But in his cases the duration is not stated, and again we are without reliable information upon the important question of possible recurrence.

Personally, I have in the last 13 years performed 39 operations for various types of epilepsy other than those connected with such gross lesions as tumours and abscesses, and the results are arranged in the following table :—

Table I.

Total cases—39. Died, 1; Untraced, 14; Traced to date, 24.

Under two years, 5; Over two years, 19.

Result in cases of over two years' duration.

"Cured"	5 (12, 11, 3, 3, 2).
"Greatly improved"	6 (14, 11, 7, 4, 4, 4).
"Improved" ..	2 (8, 6).
"Not improved" ..	6 (10, 3, 2, 2, 2, and one suicide).

In considering this table I should like to refer first to the death. I have no recollection of the case, which was operated upon some 12 years ago, and no notes beyond the simple record that a man, æt. 48, died on the 6th day after operation, but I am now emphasising it because it illustrates the very low mortality which attends a modern operation upon the cranium and cerebral meninges, and I think we may now safely say that exposure of the cortex cerebri is, and ought to be, at least as safe as la parotomy, and that when in a few minutes we shall have to deal with very high death rates, these are certainly not due to defects in the *technique* of the operation, but arise either from the serious nature of the disease or from manipulations in the depth of the brain.

Omitting this fatal case, we have 38 other cases to consider. Of these, 14 have not been traced to date and are of no value to us for the purposes of the present investigation, as the information that a patient has left the hospital "cured" or "relieved" proves nothing. Thus, then, there remain 24 cases in which alone we have perfectly definite information up to September last.

Of the 24 "traced" cases I propose to ignore five in which the operation has been performed within the last two years: of these five, one reports himself as cured, two as greatly improved, one as improved, and one as not improved, but I regard the period as altogether too short, and shall now consider only the 19 which remain and in which operation has been performed more than two years ago.

Of these 19 cases we find, then, that five are quite cured, six are greatly improved, two are only described as improved, and six have derived no benefit. In this table I have given in brackets the number of years which have now elapsed since the operation, including among those not improved one who committed suicide twelve months afterwards on the *probable* ground that he did so in despair.

If we take this table at its face value we should be able to say that the results are on the whole very good, as, in round numbers, one-fourth are completely cured and another fourth are very greatly improved, but I can hardly hold out quite such good hopes, as I suspect, although I do not know, that among the 14 untraced cases we might find a smaller proportion of cures. On the other hand, we certainly cannot be exaggerating the case if we say that of the total of 39 operations at least one-eighth have been complete successes and at least another eighth are so much improved that the sufferers themselves regard the result as a success. Briefly, then, in over a quarter (28 per cent.) we have had good results, and I must confess that these figures are more hopeful than I had anticipated when I commenced this investigation.

We have now to consider in what type of case we may hope for such improvement and what kind and nature of operation is likely to produce it. The cases have only been partially selected; that is to say, I have not throughout the last thirteen years always imposed upon myself the same restrictions as I now do, and a good many have been cases of idiopathic epilepsy, some of them with very ill-defined focal symptoms. At the present time I never advise operation for such cases, but in my earlier work this was not an invariable rule. It is, however, not always easy to be absolutely certain whether a case of epilepsy is or is not of traumatic origin, as in the case of this disease more almost than of any other the patient and his friends are prone to search for and discover a history of injury. Epilepsy is also a condition in which we are often strongly urged to operate even against our better judgment, and as long as there is the faintest hope of discovering any lesion it is difficult to resist such solicitation. Hence our cases include those which are definitely traumatic and focal, a small group of those which were certainly idiopathic and in which the operation might be regarded as purely exploratory, and a third group in which the nature was doubtful. It is almost entirely, if not entirely, in the first group that good results have been obtained, and I have never seen any benefit from operation for idiopathic epilepsy. Hence, I should in future absolutely limit operation to traumatic cases with a definite cranial lesion or focal symptoms, in which connection we may note that the figures given above from Cushing and Rawling relate solely to traumatic cases.

As regards the nature of the operation there has naturally in every case been some decompression: this is an essential result of merely opening the skull; how far it is *per se* beneficial I do not know, but, if there be any truth in the view that the epileptic seizure is due to mere variations in intracranial tension, it may have an important effect. Further, I have always removed at least some bone and, with one or two exceptions, I have not in those cases adopted methods of craniotomy.

In some of the cases—I can only recall three or four—bony spiculæ have been discovered projecting from the inner table, and in two of them a cystic cavity surrounded the spicule, separating it from the meninges. Such pieces of bone are naturally always removed, but it is not to be supposed that they will often be found. Far more common is an osteitis, causing dense hardness or some thickening of the skull at the point operated upon, but how far such a condition is associated with the epilepsy I do not know. Cysts, generally between the bone and the dura, are also occasionally found and have of course been evacuated.

Far more commonly we find only adhesions either of the dura to the skull or of the cortex to the dura, and such adhesions have always been carefully separated; in the earlier cases gold foil was then inserted, but in the last few years I have used Cargile's membrane for the purpose of preventing fresh adhesions. I am, however, rather doubtful whether the absorbable membrane is quite efficacious for this purpose; unfortunately I cannot give you definite information upon this point.

When the cerebral cortex has presented definite and visible areas of degeneration these have been removed, but I have never resorted to the method of excising segments of cortex on the basis of neurological symptoms alone. There is, however, no doubt that much of the cortical surface may safely be removed, as in the case of a young man shot through the left side of the skull during the Boer war, who had previously been operated upon at both the apertures of entrance and of exit of the bullet, but who presented a steadily increasing epilepsy with partial hemiplegia. Here the left cortex was fully exposed, by turning down the side of the skull, adhesions were separated, a blackened streak of cortex about four inches long and an inch wide was scraped away and the side of the cranium replaced. This operation was performed twelve years ago; there has been no return of epilepsy, and the paralysis has cleared up to such an extent that he is quite able to work and is earning his living.

Lastly, and before leaving the question of epilepsy, I would refer to the condition of the patient after operation. In no case has there been any trouble with the cranial defect, and I have never had to advise the use of any form of artificial covering. In one case of operation on the motor area there has followed a paralysis of the opposite hand. With this exception all the cases traced are in good general health, and the cured and "much improved" cases are all able to earn their living.

TUMOURS.

When we come to the consideration of prognosis after operation for cerebral tumours, we find that until very recently no extensive material has been available for judgment. A number of interesting cases have been published and some brilliant results have been recorded, but the general or average results of a large number of such cases have not hitherto been made known. During the last few months there have, however, appeared some valuable data. Attention was focussed upon this question by the discussion of two sections of the recent International Congress of Medicine, and Howard Tooth brought before the Congress an invaluable analysis of over 250 operations performed at the National Hospital for the Paralysed and Epileptic, operations which include largely the work of Victor Horsley, and therefore represent the high-water mark of this branch of British surgery. Still more recently, v. Eiselsberg has published an analysis of 168 cases operated upon in his clinic at Vienna, and thus we are now able for the first time to obtain some statistical data. My personal experience is naturally far less than that of these large clinics and amounts to only 57 cases, but I am venturing to add them to the totals as they represent work done under conditions far less favourable than those of a special hospital such as that of Queen Square.

We are thus provided from these sources with a total of 490 operations, upon which we can form some estimate of the possibilities of success. When, however, we attempt to deduce statistical results we are met by great difficulties. It is clearly impossible to state at the outset what proportion of cases die from operation or to distinguish operation mortality from disease mortality. Many of the operations have been undertaken in desperate conditions, and in such we find high death rates which in no way reflect upon the surgical treatment. All therefore that we can hope to do is to ascertain if possible how many cases are *saved*, and then to take one further step and try to ascertain how many of those saved have survived for so long a period that they can fairly be regarded as *cured*. In order to avoid details which would necessitate a recital of each individual case, I have prepared the following rough table of results:—

TABLE II.

Total of Operations for Cerebral Tumours.

	Total Cases.	Died in a month.	Died in a year.	Alive after a year or at date of Report.	Un-traced.
Personal	57	24	14	10	9
		42·1	*24·5*	*17·5*	*15·7*
Queen Square..	265	84	98	48	35
		31·6	*36·9*	*18·1*	*13·2*
v. Eiselsberg ..	168	78	27	58	5
		46·4	*16·1*	*34·5*	*3·0*
Total	490	186	139	116	49
		37·9	*28·3*	*23·6*	*10·0*

Figures in italics represent percentages.

In such a table, which is admittedly only an approximate expression of the facts, we may then assume that, roughly speaking operation was of little or no value, or *may* have hastened the end in the 37.9 per cent. cases of the first column, while it has probably saved or greatly prolonged life in the 23.6 cases of the third column, its value being doubtful in the 38.3 cases of columns two and four, although doubtless in many of these decompression gave relief. If it is difficult to deduce from these figures any accurate estimate of risks and of prognosis, it would be still more difficult, even if it were necessary, to compare the results of different clinics, but it is interesting to note, that save in respect of one detail, these are so closely comparable as to strengthen the general probabilities of their accuracy. The only notable difference is that v. Eiselsberg records a higher early death rate than obtains in the British hospitals, while his ultimate "recovery" rate is also exceptionally high; possibly this may indicate a bolder policy on the part of the Vienna surgeon with a greater risk but a better ultimate result.

Omitting, however, all speculation upon minor points, we find, broadly, that somewhat less than 25 per cent. of all cases may be regarded as cured, or at least as enabled to survive a highly fatal disease for a long period. Such a figure is perhaps not encouraging, but can we reasonably expect more? We must remember that the great majority of cerebral tumours are malignant. Many are sarcomatous or gliomatous. Some are tuberculous, which, like malignant growths, tend to recur and which are not rarely multiple. Innocent fibromata, endotheliomata and cysts are comparatively rare. Now it is inconceivable that we should ever be able to deal with such growths in the radical way in which we can deal with malignant disease of, let us say, the breast and uterus, or even of the intestines and stomach. If in the case of tumours of the breast we had to limit our operation to a local excision, would many more than 25 per cent. survive for a year or two? And thus we are driven to the position that excision of cerebral tumours with the hope of *radical* cure must always be exceptional.

Accepting this premise we have also to consider that, as we have seen in the case of operations for epilepsy, the mere exposure of the cerebral cortex is almost free from risk, whereas our table shows only too clearly that deep operations upon the brain substance itself become very fatal. The dangers of "exploring" the cortex are at least as great when the growth is not found, and, as a matter of fact, extensive and futile incisions, which have been made under such conditions are more dangerous than the excision of a growth. Hence, then, we are almost driven to the position that, with our present resources, cerebral surgery has to aim not so much at the cure of malignant disease as at the prolongation of life, the provision of reasonable comfort, the prevention of blindness, and especially perhaps of the intense headache which accompanies so many cases. In other words, the primary object must be decompression, and anything further that may be done must be left to the opportunities of the moment in a few favourable cases. If we know where the tumour lies we must open the skull over it, and if we then find a removable growth such as an endothelioma of the meninges we may remove it either at once or at a second operation, but deep explorations must be abandoned and it will be rarely only that we shall find tumours of the cortex itself amenable to excision.

Such an *a priori* view is, however, apparently contradicted by carrying our statistical examination a step further than we have hitherto done. I have divided my own cases into two groups—those in which the tumour was removed and those in which it was not removed either because it was not localised beforehand, or not found on exploration, or because removal was regarded as impracticable. That is to say, we have cases of removal and cases of decompression with or without exploration, and on comparing these we obtain the following results:—

Table III.

	Total Cases.	Died in a month.	Died later, but within a year.	Living.	Not Traced.
Removal	12 ..	4 .. *33·3*	3 .. *25·0*	5 .. *41·6*	—
Decompression & exploration	45 ..	20 .. *44·4*	11 .. *24·4*	5 .. *11·1*	9

Figures in italics represent percentages.

These cases are too few to yield percentages of value, but Howard Tooth's series, although somewhat differently arranged, gives analogous results, and we are at once struck by the fact that the *mortality* is higher and the survival rate is lower in the case of decompression. This arises, however, from the following reasons. "Decompression" includes all cases in which there is no localisation, all cases of basal and deeply-seated tumours and all operations undertaken in patients who are already so ill that no more serious proceeding can be contemplated. Hence we find a higher death-rate for a less serious operation. As regards survival, on the other hand, decompression does not aim at any indefinite prolongation of life: where the tumour is left to grow, death is ultimately always certain—so much is this the case, that long survival after mere decompression even casts some doubt upon the diagnosis, although in certain cases such as syphilomata, tubercle and some gliomata, decompression alone may be followed by retrogression and recovery. Hence no fair statistical comparison is possible, and if we limit the expression "decompression" to decompression pure and simple, without further exploration or vain attempts at removal, we have clearly an operation which, as regards its intrinsic risks, is comparable with operation for epilepsy, and has a mortality little if any higher than that of exploratory laparotomy.

Hence, also, we need have no hesitation in advising *early* decompression in every case of cerebral tumour. It is useless to wait until the patient is already blind, and the first onset of pressure symptoms should be the signal for this relief. If the operation for such relief exposes an accessible tumour so much the better, but we must not wait for its localisation. And if this be done we shall save much suffering and prolong many lives, at the cost of a surgical intervention which is almost trivial.

THE

INCIDENCE OF DIPHTHERIA IN RELATION TO DEFECTIVE DRAINAGE.

By A. L. DYKES, M.D.Edin., D.P.H.Lond.,

Assistant Medical Officer of Health of Oldham.

Before the discovery of its specific germ diphtheria was regarded as being largely dependent on insanitary conditions and filth nuisances. As our knowledge of the bacteriology of the disease has, however, become more accurate, this relationship has been less emphasised. Nevertheless, there are some who continue to hold the view that defective drainage is an important factor in the spread of diphtheria, and many of the modern textbooks on hygiene contain some reference to the point. It is still the custom for public health authorities to make a close examination of the drains where diphtheria has occurred, and this has doubtless brought to light many defects which might otherwise have escaped detection. Thus the public acceptance of the view that gas from drains may cause diphtheria has been indirectly useful in improving sanitation.

Typhoid fever is essentially a disease related to defective drainage. While the introduction of more modern methods of sewage-removal has resulted in a reduced incidence of typhoid fever, that of diphtheria has not been affected, and, indeed, in many towns has definitely increased. Further, diphtheria does not appear to pick out towns where drainage nuisances are specially prevalent.

It must be remembered that diphtheria is not a disease of very high infectivity. The post-scarlatinal form can be safely nursed on the barrier system in scarlet fever wards. With the exception of milk contamination close aggregation and personal contact are the chief factors in the spread of diphtheria. This is well seen in certain school epidemics. I have been unable to find any record of the diphtheria bacillus being recovered from drain or sewer gas, nor is there any evidence that such gases can raise the virulence of the organism. In investigating the latter point Shattock (1) failed to increase virulence by cultivation in sewer air for as long as two months.

Before ascribing an outbreak of diphtheria to faulty drainage there are two sources of error to be excluded. A sudden spread attributed to drains may in reality be due to infected milk; an example of this was recorded by Hutchens (1906). Again, although drain defects are more frequent in the poorer classes of property, so are conditions such as overcrowding and close association, which favour the spread of infection from one person to another.

If defective drainage had an influence on the incidence of diphtheria, one would expect the post-scarlatinal form of the disease to be more frequent in isolation hospitals with an imperfect system of drainage than in those with a more modern system. Sweeting (2) investigated this point in a number of hospitals, and came to the conclusion that no factor common to their drainage could be accepted as an explanation of the long continued yearly recurrence of post-scarlatinal diphtheria in fever hospitals of all types.

In my experience, sore throat dependent on drainage is an uncommon condition. It is certainly rare in Oldham; and in this town one would expect it to be not infrequent, especially during warm weather, as the waste-water closet system is largely in use.

There is no doubt that where there is already a morbid condition of the pharyngeal mucous membrane, as in scarlet fever patients, diphtheria is very liable to spread. It is conceivable that persons suffering from sore throat arising from drains will in like manner offer less resistance to diphtherial infection. Probably this is the only way in which defective drainage plays a part in the spread of diphtheria, if it is a factor at all.

To obtain evidence on the point I have examined the records of 693 cases of diphtheria which have occurred in Oldham during the last eight years. As is usual in this disease, each house was inspected after notification and the drains examined:—

Total number of cases of Diphtheria.	No. of cases having a history of a previous one in vicinity.	Number of houses of these cases which on inspection revealed drainage defects.
693	150 (21.6%)	82 (11.6%)

The fact that in 21.6% of these cases there was a history of a previous case in the same house or its vicinity shows how important a factor in the spread of diphtheria is personal transmission. It will be seen that 11.6% of the infected houses had defects of drainage. At first sight this percentage may appear high. For purposes of comparison I have examined the results obtained from recent house-to-house inspections. As house property in Oldham is for the most part fairly uniform in type, such a comparison is admissible:—

Number of houses recently inspected.	Number of houses with drainage defects.
1626	179 (11.0%)

The inspections were taken independently of infectious disease or complaints of nuisances, and it will be noted that the percentage which revealed drainage defects is much the same as where diphtheria had occurred.

From these statistics it would appear that in Oldham the relation of defective drainage to diphtheria is an unimportant one.

My thanks are due to Dr. Wilkinson, Medical Officer of Health of Oldham, not only for kindly allowing me to undertake this investigation, but also for placing all necessary records at my disposal.

References

(1) *Journal of Pathology and Bacteriology*, V. 305.

(2) Sweeting. 1893. Quoted from Nuttall and Graham Smith, "Bacteriology of Diphtheria."

CLINICAL NOTES.

CASE OF SUB-PREPUTIAL FOREIGN BODY.

By CHAS. HUGHES FOLEY,
Dispensary District Medical Officer and M.O.H. to Lavally, Peterswell and Ardrahan.

On October 14th a man, J. F., came to me at my dispensary, complaining of a hard, painful nodule just behind the glans. The prepuce was tight and was hard to retract, but when I did retract it, out came *a grain of oats*. In the bed it had lain in there was a slight ulceration. The patient is an old man over 65, who has lost one eye and is partially blind in the other. How the grain of oats got there is a mystery. He informed me that he had not been thrashing corn for upwards of eighteen months past.

OPERATING THEATRES.

ST. THOMAS'S HOSPITAL.

A Case of Abnormal Involution of the Breast.—Mr. Corner said that the case upon which he was about to operate was an example of a condition which is very common, and being so needs to have a label of identification attached to it, so that it may be referred to definitely and succinctly, being at last recognised as a clinical entity. It is a condition of breast found in a woman over 35 years of age, or some time after the birth of her last child. The breast is undergoing involution. Occasionally the disease is seen in virgins—apparently involution of the breast from prolonged inactivity. The breast is hard to the feel and presents with itself a hard lump which possesses none of the clinical characters (hardness, dimpling, retraction, etc.) by which we are taught to recognise the presence of malignancy. The mass is commonly painful and tender, which characters never allow the patient to forget its presence for long. What is to be done? Non-operative treatment we know unusually cures the case even if the diagnosis is correct. So as honest men doctors can unusually descend to utilise it. In this place we cannot consider the paintings and unguenta, which minister more to the patient's mind than to her body. Local excision of the inflammatory mass is unsatisfactory because of the subsequent appearances of other and similar lumps. Nothing less than the entire removal, and subsequent microscopic examination, of the breast will give satisfaction. The removal of the breast excites repugnance in, and at times refusal from, the patient to whom it is recommended. And it requires to be pointed out that the subcutaneous removal of the gland does not rob her of the appearance of a well-developed woman, whilst it removes her from the danger of consorting with the bad company of a lump in an involuting breast, the loss of a gland of little physiological value but of great danger, and allows of an opportunity of a microscopic examination being made to correct errors of diagnosis. Through such practice the knowledge has come to us that it is impossible to attain certainty in the diagnosis of the presence of malignant disease in a series of breast tumours. True, a good man is right in the majority of cases, but he learns in no too gentle school to beware of intracystic growth, intraglandular tumours, growths close to the skin, and in the upper and outer quadrant of the breast, and other less common clinical conditions. In fact, he learns that it is safer to leave alone no lump in a breast undergoing involution, particularly if it is painless. Mr. Corner then showed a patient on whom the operation recommended had been carried out five years before. On the side from which the breast had been removed there was a deposit of fat in its situation, so that the "breast" on that side was smaller than the other. Mr. Corner said that such a result as this patient showed was too good to be frequent. Unfortunately, the deposition of fat in the place of the removed breast was interfered with by the skin over it becoming adherent to the pectoral muscle. The retaining of the nipple added considerably to the satisfaction of the patient and to the deposit of fat giving the appearance of the presence of a breast. Mr. Corner said that he had never, except once or twice, been called to do a similar operation on the breast of the other side, the disease regressing and disappearing within it. In fact, this improvement in the pathological condition of the other side was so sure as to make its prophecy quite a reasonable thing.

The patient being anæsthetised, an incision was made round the lower and outer side of the breast, extending from near the margin of the sternum to well up to the axilla. Skin and fat were cut through. The operator now began to reflect the skin covering the breast. In doing this it was desirable, he said, to leave on the skin as much fat as possible, because it carried a lymphatic supply to the skin. Whenever the skin was cleaned of the fat it sloughed, leaving behind a great unsightly wound. It was no simple matter to dissect the skin and fat off the breast, particularly under the nipple, where the attachment of the skin is tight. It would be noticed that as this reflection of the skin is done, the flap is held up with two artery forceps; it is not bent backward towards the chest. This is done because it was found that when the skin was held backward it was more easily "button-holed" than when it was held upward. After the reflection had exposed the upper and inner margin of the breast, the gland was seized with vulsellum forceps, drawn outward, and the anterior surface of the great pectoral muscle, below and internal to the breast, exposed. It was now possible to remove the gland with only a few touches of the knife, except by the axilla. This "tearing" was an advantage in that there was less hæmorrhage. Towards the axilla the glandular tissue of the breast often extends as a "tail," and its complete removal requires care.

The next few minutes were spent in ligaturing every spouting or oozing vessel to minimise the prospect of the formation of a hæmatoma after the operation. Finally the skin was united by interrupted sutures of ten-day catgut, which were prevented from pressing on the skin and from marking it by glass beads. Each skin suture was a "mattress stitch," so that the skin edges are turned out. Formerly, Mr. Corner said, it had been his habit to drain these wounds for 24 hours. But he had seen that this perfect drainage frequently led to the skin flap becoming adherent to the anterior surface of the big pectoral muscle. He now put his skin sutures a little "too far" apart so as to let some of the post-operative serum drain away between them. In this way a thin layer of serum collected between the skin and the muscle, making for a more natural appearance of the breast. In consequence every patient should have the wound dressed 24 hours after the operation, to facilitate which proceeding it was wise to hold the first dressing in position with a many-tail bandage, the tails coming over the shoulder. As the stitches are of ten-day catgut the patient is not put to the anticipation or pain of their removal.

It was desirable, he thought, to give all clinical entities a name and label by which the particular condition is known, its treatment, pathology, prognosis and diagnosis rendered clear. The best name for the clinical picture described here is "abnormal involution of the breast."

TRANSACTIONS OF SOCIETIES.

ROYAL SOCIETY OF MEDICINE.

Section of Obstetrics and Gynæcology.

Meeting held Thursday, October 8th, 1914.

Dr. W. S. A. Griffith in the Chair.

SPECIMENS.

Dr. H. Russell Andrews recorded a case of "severe bleeding after the menopause due to rupture of a vein in the endometrium." The patient was aged 49 years, her periods ceased in 1910, there was a severe flooding in May, 1911. On admission the patient was blanched and a tumour was found reaching to above the umbilicus, this was proved at operation to be a degenerating fibroid. The tumour did not bulge into the cavity of the uterus, but the latter was enlarged and two dilated veins were seen on the surface of the endometrium; one of these had an opening visible to the naked eye. When the uterus was squeezed, blood oozed out of this opening. The opening was large enough to admit a piece of thick silkworm gut.

Remarks were made by Dr. Herbert Spencer.

Dr. Arthur Giles and Dr. Cuthbert Lockyer showed a case of pregnancy occurring within the ovary. The patient was aged 32 years, she consulted Dr. Arthur Giles for sterility. Six months previously a menstrual period had been missed after which the monthly flow was resumed as usual. On examination Dr. Giles found a rounded swelling the size of a duck's egg to the right of the uterus. This was diagnosed as an ectopic gestation. At the operation the tumour was found to belong to the right ovary, the corresponding tube and mesosalpinx were normal. With the aid of the epidiascope Dr. Cuthbert Lockyer demonstrated: (1) that the pregnancy sac was completely surrounded by a capsule of ovarian stroma. (2) The presence of a large amniotic sac in which no fœtus had been discovered. (3) Large chorionic villi with their mesoblast undergoing mucoid degeneration. (4) Calcareous deposits in the blood clot around the villi. (5) Decidual reaction in the connective tissue of the medullary portion of the ovary. (6) Decidual reaction in the cortical substance of the ovary. No lutein lamina could be found investing the gestation sac. The case was one of true ovarian pregnancy in which the embryo had died and the amniotic sac had become dilated by hydramnios. There were no visible blood vessels in the enlarged villi, but their degeneration and the presence of calcareous deposits on the bloodclot suggested that the death of the ovum must have occurred some long time before the operation.

Dr. Arthur Giles showed slides prepared from a case of chorion epithelioma removed from a patient aged 50 years accompanied by a report on the histological findings by Dr. Dudgeon and Mr. Gordon Ley.

Remarks were made by Dr. Blair Bell, Dr. Herbert Spencer and Mr. Gordon Ley.

Mr. Malcolm showed a fibromyoma uteri complicated by diffuse simple papilloma of the interior of the uterus. Those members who examined the sections were of the unanimous opinion that the "papilloma" was an adenocarcinoma.

Mr. Donald Roy communicated a case of puerperal eclampsia, fatal, from rupture of a large subcapsular hæmatoma of the liver into the peritoneal cavity.

Mr. J. D. Malcolm read a paper on

"CASES IN WHICH AN INTESTINAL FISTULA WAS MADE WITH A VIEW TO FACILITATE RECOVERY FROM OPERATION UPON THE ABDOMEN."

Of which the following is an abstract :—

Mr. Malcolm discussed the condition sometimes arising after an abdominal section in which the surgeon believes that if the patient's bowels will move, recovery will follow, but if the bowels will not move the patient will die. The symptoms were usually attributed to a paralysis or a paresis of the intestine and this, in turn, was commonly believed to be due to a septic peritonitis. Mr. Malcolm expressed the opinion that in many of these cases the cause of trouble was not a septic peritonitis, but that the symptoms were due in part to a feebleness of peristaltic force, in part to some more or less definite obstruction of the intestine and that the conditions might be correctly described as one of acute intestinal stasis. He recalled the fact that when opium was given in full doses after every abdominal section most of the cases did well, but if no gases escaped from the anus the patient always died not later than the fifth day, and a slight spreading peritonitis was found after death. If in one of these cases a second operation was performed in the hope of finding an obstruction early on the fourth day or sooner, but when the symptoms were well developed, there was never any sign of spreading peritonitis in a typical case. Moreover, sometimes, if no second operation was undertaken, a patient immensely distended and apparently moribund would, without apparent cause, begin to pass gases from the rectum and all the symptoms would be completely and rapidly resolved. It was argued that the peritonitis found after death, when death occurred, could not be the cause of the symptoms and that it was a consequence of the mode of death. The effect of modern treatment by substituting stimulation of the bowel and rational feeding for continuous administration of opium and starvation was pointed out and records of cases were given in support of these views.

In three cases patients seemed certain to die from vomiting and distension respectively on the 10th, 5th and 5th days after an abdominal section. A Paul's tube was therefore inserted into the small intestine in two cases and into the cæcum in the third and immediate relief of all symptoms followed. In the first case the patient died sixteen months after the operation from general tuberculous disease with the fistula still open. In the other two cases the fistula was closed by operation and recovery was complete. In these three cases the bowel below the fistula resumed its functions without further surgical treatment.

In a fourth case under similar circumstances the second operation failed and the patient died. There was no *post-mortem* examination but there was a focus of infection from which peritonitis might have started. The writer assisted at two other operations for the relief of distension five days after the primary operation and these proved fatal, one being certainly a case of septic peritonitis. In both these cases attempts to release adhesions were made.

In Mr. Malcolm's fourth case there was intense pain over the site of a colon-anastomosis and great distension on the third day after the operation when complete relief was given by inserting a Paul's tube into the cæcum. The fistula closed spontaneously when an ileosigmoidostomy was performed sixteen days later.

In two other cases a fistula was made in the course of an operation—once in the ileum, once in the cæcum—to keep the lower bowel quiet, with good results, the fistula being closed later by operation.

The importance of not making a fistula unnecessarily was insisted upon but the fact that this treatment would occasionally save a life that would otherwise be lost was shown by the records given.

The making of a fistula for the relief of distension was not likely to be successful in a case of septic peritonitis. If an early diagnosis could be made in a strong patient an immediate release of adhesions might give the most satisfactory results, but after the third day if the patient was weak and if there were many adhesions an extensive operation would almost certainly prove fatal, whereas a simple formation of a fistula might bring about a cure.

The paper was discussed by Dr. Tate, Dr. Briggs, Dr. Hubert Roberts, Dr. Giles and Mrs. Scharlieb.

CORRESPONDENCE.

FROM OUR SPECIAL CORRESPONDENTS AT HOME.

SCOTLAND.

EDINBURGH.

Roxburgh, Berwick, and Selkirk District Asylum.

The report of this institution for the year ending May, 1914, has just been issued. The total number of patients under care was 398, the admissions 71, the discharges 40, and the deaths 25. The number of admissions was slightly above the average, and 21 per cent. of them were patients who had previously been under treatment. In 35 per cent. there was hereditary predisposition to mental disorder. The physical condition of the patients was average in only 19 per cent., bad in 66 per cent., and very bad in 14 per cent. In commenting on the events of the year, Dr. Carlyle Johnstone, the Medical Superintendent, expresses the hope that by the operation of the Mental Deficiency Act the scandalous multiplication of the mentally unfit will be materially checked. Among the sections of the Act which are especially commendable is Section 72, district boards to contribute to the upkeep of pathological laboratories, and Section 73, safeguarding persons putting the Act into force from civil or criminal proceedings. The highly objectionable clause in the Bill providing that private patients should have "the same accommodation, food, and attendance in all respects as pauper patients" has been removed, and does not appear in the Act. As the 56th report of the General Board of Commissioners in Lunacy for Scotland is the last which will be presented by the Commissioners under their old designation, it is of interest to note some of the more important advances in lunacy administration which have taken place since 1857. One might allude to the care of the insane in private dwellings, the acquisition of large tracts of land by district asylum boards, so as to provide healthy surroundings and occupation for the patients, the abolition of old walled airing courts, the disuse of mechanical restraint and seclusion, the extensive use of open doors, the practice of allowing patients to go about without supervision, or on parole, the recognition of the curative function of asylums and the establishment of the principle that acute insanity requires special treatment and nursing, the reform of night nursing, the more extended use of female nurses, and the pathological study of insanity.

Royal Asylum, Perth.

The eighty-seventh annual report of this asylum, covering the year ended March 31st, 1914, has just appeared. Dr. Dods Brown, who was recently appointed Medical Superintendent in succession to Dr. Urquhart, reports that 150 cases were under treatment during the year. Thirty persons were admitted, 25 discharged, and 9 died. Of the new admissions 20 per cent. were suffering from psychoses due to alcohol, and in only one-fourth of these were there evidences of hereditary tendency. In half of the total admissions, however, hereditary predisposition to mental disorder existed. The chief event in the year has been the retiral of Dr. Urquhart after 34 years' service. Dr. Urquhart's reputation is widespread, not only on account of the work he has done in Perth, but on account of the innumerable services he has rendered to his subject through a long connection with the medico-psychological and other societies.

The University of Edinburgh.

The medical classes reopened on October 6th, with much depleted classes on account of the war. Fully 400 medical students have answered their country's call, and as the session progresses there is every likelihood that this number will increase. It is a novelty unknown in this generation for teachers to see uniform-clad students in their cliniques—who could have foretold last summer that he would so soon be lecturing to men in khaki? Of the O.T.C. 230 members have received commissions—111 in the artillery, 78 in the infantry, 10 in the engineers, and 31 in the medical corps. Over 60 men in the medical unit form the Field Ambulance of the Scottish Horse. About 100 have joined the Territorials, while Edinburgh's new battalion and the Scottish Horse have also received their quota. Many men have joined Kitchener's new army, and one hears of men, rejected time and again for some defect, persevering until at the fourth or fifth time of asking they were accepted by the recruiting doctor. The Indian students are talking of forming a medical unit for service with the Indian Army. Owing to the depletion of the staff of the Infirmary through absence of some of its members on active service, the following temporary appointments as assistant surgeons have been made:—R. C. Alexander, F.R.C.S.E., W. W. Carlow, F.R.C.S.E., J. M. Graham, F.R.C.S.E., F. E. Jardine, F.R.C.S.E., and W. G. Wood, M.B., Ch.B.

In most of the art classes, which opened on October 14th, the war formed the theme of the introductory lecture. Professor Sett, in the moral philosophy class, lectured on its ethical aspects, Prof. Pringle Pattison on "Nietzsche and the War," Prof. Mackinnon on its causes and the issues involved, and Professor Lodge on Britain's help in European dangers.

A special graduation ceremonial took place this week, at which a number of students who had successfully passed the final examination were capped. A large proportion of the new graduates will at once go on active service.

The Medico-Chirurgical Society of Edinburgh

will not meet regularly this winter, although it is hoped to have one or more clinical meetings as occasion may arise. After full consideration it was thought that in the circumstances of the time there would be much difficulty in securing either an adequate attendance of members or papers suitable for discussion.

Scottish Red Cross.

The Scottish section of the Red Cross Field Hospital, to which Mr. Struthers (Edinburgh) is attached as Surgeon, has gone to Paris, instead of to Rouen, as was originally intended, and it is reported that in all probability it will shortly move to some locality nearer the front.

South Queensferry Emergency Hospital.

The hospital which was presented by an anonymous donor to the Admiralty at the outbreak of the war, and for which a site near Rosyth was selected, has now, after about 2½ months' work, been completed. The building, which consists of a main central administration block with four large wards radiating from it, is situated at Butlaw, S. Queensferry, near the existing Royal Naval Hospital. The operating theatre is thoroughly up to date in every respect, and there is a fully equipped X-ray department. The hospital was to have been staffed by men from the London Hospital, but it is understood that other arrangements are being made.

Dalmeny House, Lord Rosebery's principal Scottish residence, has been given over by its owner for conversion into a hospital, and the necessary alterations have been carried out. It is situated on the south bank of the Forth, between Edinburgh and Queensferry. It was Lord Rosebery who, at Mr. Asquith's recruiting meeting in Edinburgh last month, described the price the nation would have to pay in this war as "a price upon the renewal of the lease" of the British Empire. His lordship has set a good example in paying his share of the fine.

GLASGOW.

Wounded in the Royal Infirmary.

The wounded arriving in Glasgow have now overflowed into the voluntary hospitals. The two military hospitals at Stobhill have received men, in various detachments, to the number of 700, but now the Glasgow Royal Infirmary has received 100. Of these there were 40 cases necessitating removal by stretchers in ambulance waggons from the station upon the arrival of the train from Southampton. The other patients were accommodated in motor cars for removal to the Infirmary. Among the wounded were three privates of the Royal Army Medical Corps.

The Late Dr. Harry S. Ranken.

The late Captain Harry Sherwood Ranken, R.A.M.C., was wounded on September 19th, in the fighting near the River Aisne, and died in a base hospital in the north-east of France on September 25th. He had the honour of being recommended for the Victoria Cross by the Colonel commanding the regiment to which he was attached. Captain Ranken was the elder son of the parish minister of Irvine, Ayrshire, and graduated at Glasgow University in 1905.

Tragic Death of Dr. J. D. Noble.

The body of this gentleman, in a mangled condition, was found on the 12th inst. at the bottom of a cliff at Rubislaw Quarries, Aberdeen. He had evidently fallen from a height of about 300 feet. No one saw the accident, but Dr. Noble was observed walking in the vicinity of the quarries some time before. The body was dressed in deceased's uniform as a Captain of the Royal Army Medical Corps, Territorial Force. Dr. Noble was a native of Mid-Lothian, and graduated in medicine at Edinburgh in 1893. He came to Aberdeen some years ago, acquiring the practice of the late Dr. McCombie. On the mobilisation of the Territorial Force Dr. Noble was unable to proceed with the troops to Redford, as he had become a victim to fainting fits. He was recovering, however, and the announcement of his tragic death was received with painful surprise among the local members of the profession.

At Stobhill Hospital, Glasgow.

The latest batch of wounded soldiers received at this hospital numbers 100. There is a larger proportion of medical cases than usual. The men had passed through British hospitals at St. Lazaire, Paris, and elsewhere in France, and were consequently in better condition than some of the previous contingents from the front.

Home Hospitals' Reserve.

The Earl of Dalkeith, who presided at the annual meeting of St. Andrew's Ambulance Association, held in Glasgow, said that since 1908 the Association had, at the request of the War Office, maintained a body of trained volunteers from the St. Andrew's Ambulance Corps, called the Home Hospitals' Reserve, its duty being to take over, in time of national emergency, the 15 military hospitals in Scotland and replace the regular R.A.M.C. personnel. On the outbreak of the war orders were received from the War Office for the reserve to be embodied, the instructions being that the non-commissioned officers and men were to proceed to their stations and there to be medically examined and enlisted for six months or the duration of the war. The necessary orders were issued to the sections of the corps, and within 48 hours officers, non-commissioned officers and men reported themselves at the various stations and took charge of the military hospitals, thus setting free the regular R.A.M.C. for duty with the Expeditionary force. The smoothness with which this mobilisation was carried out reflected great credit on the officers, non-commissioned officers and men concerned.

Pressure on Medical Profession.

The pressure which the war is putting on the profession is exemplified at Glasgow Royal Infirmary. A number of the qualified young men who had arranged to take up duty as house physicians or house surgeons have joined the navy or army. In consequence of this, the managers are asking for applications for these posts either from qualified men or from those who are going up for their final examination.

BELFAST.

Royal Victoria Hospital.

The session was opened on Friday, 16th inst. There was a large attendance of members of the visiting staff and students. Sir William Whitla, M.D., presided, and the introductory address was given by Dr. Victor Fielden, who chose, as his subject, "Suggestion." After welcoming the students on behalf of the staff and advising them to be guided in their course of study by the registrars, he dealt with the therapeutic power of suggestion upon both the conscious and the subconscious mind of patients, quoting the views of various writers, and concluded by hoping that such a wide field for research might be engaged in by some of those who were entering upon the study of medicine.

McQuitty Memorial Scholarship.

There was a large entry for this scholarship held at the end of the summer session. Mr. A. Fullerton was the successful candidate. The scholarship is of the value of £30, and is awarded to students in their last year for proficiency in practical clinical work.

LETTERS TO THE EDITOR.

[We do not hold ourselves responsible for the opinions expressed by our Correspondents.]

ARTHRECTOMY OF THE ANKLE.

To the Editor of The Medical Press and Circular.

Sir,—Not to prove that there is nothing new under the sun, but just to emphasise the importance of Mr. Edred Corner's remarks that appeared in the Medical Press and Circular of September 30th on "Arthrectomy of the Ankle," I venture to recall the brief particulars of a case of my own, which was first published in the *Lancet* of May 24th, 1879. It formed part of a clinical lecture delivered by me to the students of Queen's College, Cork. At that date the final result of the operation had not been secured, but I subsequently referred to the case in my *brochure*, "Medical and Surgical Essays." This included some observations on the hip, knee and ankle-joints.

The patient, a young girl, was admitted to the Hospital for Women and Children in September, 1877. The left ankle-joint was swollen, with the typical soft, doughy, and pulpy feel originally described by Brodie in the case of the knee. The entire joint and the ends of the malleoli were affected. The constant dull, gnawing pain had impaired the girl's health, for she had been several years under treatment, and suffered from choreic convulsions, any examination of the joint bringing on an attack. She was treated in hospital for some time, and after a short absence returned in order to have the joint excised, or the limb amputated, as it was a question if amputation would not be the best course to take. However, in March, 1878, the whole joint then being greatly swollen, with a sinus opening at the outer side, I performed the following operation:—

By a free semi-lunar incision on the outside of the joint I removed the ends of the malleoli and all the tarsal bones. As the metatarsals appeared sound they were not interfered with. I saved all the sound periosteum that I could. No tendon was cut, and no vessel was ligatured or torsioned. The operation was antiseptically performed, at that time, under carbolic spray, and the cavity that was left washed out with a solution of the same. After the first fixings, with plaster of Paris and felt, various splints of different kinds were used, including Sayer's ankle splint. A sinus remained which had not closed when I published the case in 1879. Otherwise the progress was most satisfactory, and Mr. Edmund Owen showed the case for me with some others in the Surgical Section at the Cork meeting of the British Medical Association in August of that year. Consolidation, with new bone deposit, converting the tarsal area into a solid mass, gradually took place, and fair movement with the partial formation of a false joint followed. There was complete control over the toes, and in 1880, when I showed the case at the local branch of the British Medical Association, the girl walked well. In 1882, when I last saw her, there was only a trace of lameness. Years afterwards I had inquiries made as to her subsequent history, when I learnt that she was quite well and in service in America. A drawing from a photograph of the lower limbs is shown in the *brochure* referred to.

About the same time, from a young man of 20, I removed the greater part of the os calcis, the astragalus and the cuboid bone, with just as good a result. Before 1881 I had removed the os calcis five times, and in a few instances the entire or portions of the other tarsal bones, the most important essential being to leave no suspicious portion or shell of bone. I had a special knife made for these bone operations, and one which I have found most useful in many other surgical procedures. It has a strong, short blade, blunt at the end, which is curved and not pointed.

I look back on those early days of antiseptic surgery when, in 1876, I performed my first complete antiseptic operation under carbolic spray, and can reflect on the great advances since made up to our present day thorough aseptic *technique*. The joint operations I then ventured upon I could not have done with any hope of a successful result were it not for the closest adherence to Listerian principles. And in no branch of surgery is the strictest asepticism more necessary than in the various arthrectomies of the joints.

I am, Sir, yours truly,
H. Macnaughton-Jones, M.D., M.Ch.,
F.R.C.S.I and Ed.

111 Harley Street,
London, W.

ALLYL SULPHIDE IN THE TREATMENT OF TUBERCULOSIS.

To the Editor of The Medical Press and Circular.

Sir,—Your issue of the 23rd of September contains an editorial criticism of the medical treatment of tuberculosis which embodies a reference to the Minchin method of cure by allyl sulphide, and Dr. McDuffie's striking experience in his New York clinic of this treatment.

I have been privileged to peruse a reprint from the *Interstate Medical Journal* containing this celebrated physician's observations in over 1,000 cases of tuberculosis treated by fifty-five different methods, including every known drug employed in the pharmacology of this disease. After enumerating in detail these half-hundred treatments, he concludes with the striking statement that of this long list *only two* "stand out as regards anything like specific action upon the tubercle bacillus and tubercular processes"; these are garlic and mercury. After analysing the qualities of garlic and explaining the *rationale* of its action, he goes on to say, "Garlic gave us our best results, and would seem equally efficacious, no matter what part of the body was affected, whether skin, bones, glands, lungs, or special parts." In proceeding to criticise the action of mercury he remarks upon its accumulative property as being a drawback when compared to garlic. It will be noted that Dr. McDuffie uses the word "our" in his statement, speaking as he does for the staff of the Metropolitan Hospital, New York. Such eminent testimony cannot be gainsaid, especially when corroborated by the experience of many medical men at home and abroad, who have paid ungrudging tribute to the marvellous virtues of allyl sulphide as an arresting factor in tuberculous decay. No other drug can claim to come within sight of it in this special province, and as a healing agent its reputation rests upon indisputable evidence. I have myself been accustomed to employ it both in this country and South Africa for over twelve years, and have proved it to be a veritable sheet anchor in the treatment of every form of tuberculous disease. Dr. Minchin, as the original exponent of the theory of "shut away fluid," may congratulate himself upon having so eminent an authority as Dr. McDuffie confirm him in his researches upon this important surgical point, for he states that operative interference is indcated "in all cases with continued septic temperature and all cases of abscess formations, closed cavities and *pent-up fluids*, from which there is septic absorption. This is more frequently indicated in pulmonary tuberculosis." Minchin was the discoverer of this fact, and in his work on the treatment of tuberculosis and lupus by allyl sulphide, published in 1912, emphasises the importance of the recognition and surgical treatment of these toxin pools seated deep within the lung tissue. Their existence explains those intractable cases of disease with high temperature and rapid pulse, hectic, and night sweats, bearing a close relationship to the systematic poisoning of fulminating appendicitis, of which McDuffie further remarks, "with all its severity and rapidity is but as thunder compared to the lightning-like attack of acute fulminating tuberculosis of the lungs." For this condition he advises operation. There is only one treatment now recognised for the condition of abnormal "shut away fluid" known as appendix abscess, and the day will likewise come when no physician will stand idly by and watch a victim of septic pulmonary infection go to his doom without attempting the surgical elimination of the cavity by incision and drainage. Minchin's discovery of allyl sulphide renders interference possible, and places in the hands of the thoracic surgeon a pulmonary antiseptic of inestimable value.

I am, Sir, yours truly,
John F. Elliott, L.R.C.P. and S.Irel.

Rostrevor, Co. Down,
October 12th, 1914.

THE METRIC SYSTEM AND THE NEW "BRITISH PHARMACOPŒIA."

To the Editor of The Medical Press and Circular.

Sir,—I fear that middle-aged and elderly men, both among medical practitioners and dispensing chemists, will not go into raptures over the effort to introduce the metric system in the new Pharmacopœia. Instead of being a boon, it will be a mercy if many be not poisoned through the change. What was wrong with the old system of weights and measures which has stood the test of so many years' experience? Theoretically, it may not be quite exact, but practically it quite answered. European changes are not at present so very popular. The big lapse from simplicity was the introducing percentage solutions instead of so many grains per oz., as the older pharmacopœias ordered. That change necessitated what you say "requires the mathematical genius of a Newton plus a technical literature of reference that would not disgrace a Carnegie library." Why not revert to the simpler forms?

I am, Sir, yours truly,
James Hamilton.

60 Sydney Street,
Chelsea, S.W.
October 18th, 1914

THE RADICAL OPERATION FOR HERNIA.

To the Editor of The Medical Press and Circular.

Sir,—Sir Victor Horsley, in his "Mitchell Banks Lecture," reported in full in your issue of last week, has made a very important pronouncement. He says that from all the facts the logical conclusion follows that for the good of the whole community every hernia must be cured by radical operation as soon as it is discovered, and that such he believes is the opinion of every modern surgeon. If this be so, the subject is too important, the beneficial results anticipated are too widespread and valuable, to be lost sight of. Parliament is occupied with more pressing matters just at present, but a Select Committee or a Royal Commission upon the subject would seem to be called for as soon as domestic affairs can obtain their fair share of attention.

I am, Sir, yours truly,
Onlooker.

Glasgow,
October 17th, 1914.

LIBERATION OF R.A.M.C. PRISONERS.

To the Editor of The Medical Press and Circular.

Sir,—In your "Current Topics," page 395, under the heading "The Exchange of Prisoners," you refer to the excellent suggestion of Mr. C. H. Grinling, of Woolwich, "that every R.A.M.C. officer or soldier taken prisoner should at once be liberated." Your annotation, however, gives the reader the impression that the humane suggestion originated with Mr. Grinling, whereas it emanated from a great Irish surgeon, Hunter H. McGuire, Medical Director of the "Stonewall" Army Corps of the Confederate States Army, in the spring of 1862, when his base hospital was at Harper's Ferry, and was acted on throughout the Civil War. His scheme for the regulation of the liberation and exchange of medical officers and medical attendants is to be found in the first volume of the *Confederate States Medical and Surgical Journal.*

I am, Sir, yours truly,
George Foy.

October 14th, 1914.

OBITUARY.

ANTHONY TRAILL, M.D.

We regret to announce the death, after a lingering illness, of Dr. Anthony Traill, Provost of Trinity College, Dublin. Dr. Traill obtained the degrees of M.D., and M.Ch. in Dublin University in 1870, and at a later period was elected Honorary Fellow of both the Royal College of Physicians and the Royal College of Surgeons in Ireland. It is noteworthy that in the long line of the Provosts of Trinity College, Dr. Traill was the only one who took out a medical degree. Dr. Traill had been associated with Trinity College for 59 years as student, professor and provost, and had almost attained his 76th birthday. He was born in County Antrim, of which county he was a grand juror and deputy lieutenant. He had a distinguished career as a student, his class-fellows including Lecky, the historian. He took great interest in the Medical School of the College, and was a prominent figure at the Bicentenary celebrations two years ago. Dr. Traill received his early education at a day school in Belfast, and entered Trinity College in July, 1855, in his seventeenth year. He was a diligent student, and won a number of important academic distinctions. He was first Science Scholar in 1858, and graduated as University Student with First Moderatorship and large gold medal in mathematics, and First Senior Moderatorship and large gold medal in experimental science. In 1864 he obtained the Madden Prize, and became a Fellow the following year.

DR. T. HOBBS CRAMPTON.

It is our sad duty to record the death of Dr. T. Hobbs Crampton, which occurred at his residence, 30 Myddelton Square, on Tuesday, the 13th inst. His illness was comparatively short, the proximate cause of his death being ptomaine poisoning, which was followed by typhoidal symptoms, on which extreme weakness and fatal syncope supervened. Dr. Crampton was the son of Mr. Wm. Crampton, of Athy, Ireland, and was in his 58th year. He received his medical education at the Carmichael School of Medicine, Dublin. He was a Licentiate of the Royal Colleges of Physicians and Surgeons of Ireland, and had been in active practice in London for many years. There was no more energetic member of the Irish Medical Schools and Graduates' Association than Dr. Crampton. For many years he has been on its Council, of which body he was for some time Chairman, and he has never been absent from a single gathering of the Association, whether in London or the provinces up to the last one held in Harrogate this spring. A few years back, when he retired from the office of Treasurer, he was presented with an address in recognition of the valuable services he had rendered the Association. In 1913 he was elected President of the City Branch of the British Medical Association, in the work of which he took an active part, and had only recently retired from office. When the war broke out he was elected Chairman of the Finsbury War Relief Fund. What recreation he took from his busy life was given to golf, of which game he was an enthusiastic follower.

At St. John's Church, Myddleton Square, Islington, where part of the funeral service was held, the Council of the Irish Medical Schools and Graduates' Association was largely represented, and a beautiful floral harp, with "From Erin" worked in flowers on it, was sent by the Council "as a tribute of love, respect and esteem from the members." Hobbs Crampton was one of those honest, cheery and bright souls of which the world has too few. In the gatherings he frequented there will be felt a blank by all who knew him, and in the Executive of the Association he so well served his place will be hard to fill.

MEDICAL NEWS & PASS LISTS.

Royal College of Physicians of London.

THE Bissett-Hawkins Memorial Medal awarded by the Royal College of Physicians of London for distinguished services in the advancement of sanitary science and public health was presented to Major Sir Ronald Ross, Professor of Tropical Sanitation at the University of Liverpool, on Monday last at the conclusion of the Harveian Oration delivered in the College by Sir Douglas Powell.

University of Oxford.

THE following degrees have been conferred:—

D.M.—H. J. B. Fry, Magdalen; O. A. R. Berkeley-Hill, Trinity (in absence).

Royal Sanitary Institute.

THE following medical members have been elected during October:—

John D. Buchanan, M.B., B.Ch., D.P.H.Manch., Town Hall, Lancaster; William A. Daley, M.D., B.S., B.Sc.Lond., B.A.R.U.I., D.P.H.Cantab., Town Hall, Bootle; George H. Dart, M.D., M.R.C.P.Edin., D.P.H.Camb., Greenwich; Frank Hauxwell, M.B., Ch.B., D.P.H., Town Hall, St. Helens; Sandys J. C. Holden, M.B., Ch.B., D.P.H., St. Helens, Lancs.; William M. MacIlraith, L.R.C.P., L.R.C.S.Edin., D.P.H.Vict., Rawtenstall, Lancs.; Charles D. Outred, M.R.C.S., L.R.C.P.Lond., D.P.H., Town Hall, Gravesend; Alfred E. Townley, M B., Ch.B., D.P.H. Manch., Oswaldtwistle, Lancs.

University of Edinburgh.

THE following candidates have passed the special final examination for degrees in medicine and Surgery. It is understood that this examination, which, in ordinary course, would have been held in December, has been held at this time in order to allow men to go on service at the front, and also to supply the places vacated by men who have gone to the war:—Cedric W. Aikman, John G. Anderson, Thomas H. S. Bell, Prem N. Berry, Thomas C. Britton, Edward L. G. Brodziak, William T. Buchan, M.A., Peter W. Carruthers, Frederick C. Chandler, James S. Crichton, John Dale, M.A., Diederik J. Dauth, Joseph Dunlop, William F. Dunlop, Harry H. Gellert, David Charteris Graham, Walter W. Hallchurch, Frederick W. Hird, Sidney C. Huddlestone, Maurice P. Inglis, Leslie F. E. Jeffcoat, Lazur Lappin, George M. Levack, John Loftus, Egbert W. Louw, Patrick T. T. Macdonald, M.A., William H. M'Granahan, Frank G. Milne, Wilfrid W. Phillips, Andrew R. Ross, Harry P. Rudolf, Abdul H. Shaikh, B.A., Clifford H. K. Smith, Petrus A. Strasheim, Sidney W. H. Stuart, Kenneth A. M. Tomory, John M. Verster, Gifford T. van der Vijver, Johan F. van der Westhuijzen, Henry W. Wier, James A. Young.

Royal College of Surgeons in Ireland.

THE opening meeting of the winter session, 1914-1915, was held recently in the Royal College of Surgeons, Stephen's Green, when the prizes were distributed by the President (Mr. F. Conway Dwyer), who gave a short address. The prizes were then distributed as follows:—

Winter Session, 1913 and 1914.—Systematic Anatomy—J. F. Seale, first prize (£2) and medal; M. Briscoe, second prize (£1) and certificate. Practical Anatomy—First Year—J. J. Brennan, first prize (£2) and medal; S. J. Healy, second prize (£1) and certificate. Second Year—M. Briscoe, first prize (£2) and medal; G. Dunne, second prize (£1) and certificate. Practice of Medicine—D. V. O'Connor, first prize (£2) and medal; J. A. McKinnon, second prize (£1) and certificate. Surgery—D. V. O'Connor, first prize (£2) and medal; B. Hirson, second prize (£1) and certificate. Midwifery—J. A. Musgrave, first prize (£2) and medal; H. J. Villiers, second prize (£1) and certificate. Pathology—J. A. McKinnon, first prize (£2) and medal; J. A. Fretton, second prize (£1) and certificate. Physiology—M. Briscoe, first prize (£2) and medal. no award second prize. Chemistry—J. J. Brennan, first prize (£2) and medal; Miss H. G. Rea, second prize (£1) and certificate. Physics—W. E. Cooke, first prize (£2) and medal; S. J. Healy, second prize (£1) and certificate. Dental Anatomy—P. J. Sheerin, first prize (£2) and medal.

Summer Session, 1914.—Barker Anatomical Prize—Miss E. Budd, £26 5s.; J. A. Fretton, special prize. Carmichael Scholarship—£15, J. F. Seale. Mayne Scholarship—No award. Gold Medal in Operative Surgery—M. Shipsey. Silver Medal in Operative Surgery—A. Merrin. Practical Histology—T. N. D'Arcy, first prize (£2) and medal; J. J. Brennan, second prize (£1) and certificate. Practical Chemistry—G. C. O'Donnell, first prize (£2) and medal; C. E. Herbert and Miss E. Gleeson (equal), second prize (£1) and certificate. Public Health and Forensic Medicine—H. Levison, first prize (£2) and medal; J. F. Seale, second prize (£1) and certificate. Materia Medica—J. F. Seale, first prize (£2) and medal; second prize, no award. Biology—L. M. Leventon, first prize (£2) and medal; J. J. Brennan, second prize (£1) and certificate. Surface and Topographical Anatomy—M. J. Briscoe, first prize (£2) and medal; M. M. Price, second prize (£1) and certificate.

University College, Dublin.

THE Examiners have made the following recommendations:—

Faculty of Medicine: First University Examination in Medicine—Honours in Parts I. and II.—Second Class—Joseph Duffy, Michael F. O'Brien, M.A. Pass—Frances Dooley, Joseph Duffy, John Hanway, Matthew Harris-O'Connor, Madeline A. M'Nulty, Bridget A. Moclair, Michael F. O'Brien, M.A., Aiden J. Sullivan. Pass in Part II.—John J. MacCabe.

Second University Examination in Medicine.—Honours—First Class—Alice B. Chance, B.A.; Second Class—John J. Fitzmaurice, Patrick MacCarvil, Maggie Irvine. Pass—James P. Cassidy, Alice B. Chance, B.A., Eugene G. Connolly, Denis J. Corboy, George Duggan, Francis J. Dowdall, John J. Fitzmaurice, Christopher Grimes, Maggie Irvine, Eva K. Kavanagh, Edward Keelan, Solomon Lawlor, Patrick MacCarvill, John L. M'Fadden, Patrick M. M'Kenna, John Maguire, John O'Meara, Patrick Purcell, John M. Ryan, B.A., Thomas J. A. Ryan, Harold J. Swan, John S. Walford, Pierce J. Walton.

Third University Examination in Medicine.—Honours—First Class—Thomas J. X. Canton, James F. P. Devlin, James M'Polin, B.Sc. Second Class—Patrick O'Connell, Thomas J. Bourke and Thomas Kelly, ex aeq., Patrick Magner. Pass—Eileen M. E. Bourchier-Hayes, Thomas J. Bourke, Thomas J. X. Canton, John J. Cawley, Michael A. Clements, Michael Cooney, Aloysius D. J. Courtney, Edward P. Coyne, Albert T. Crowley, James F. P. Devlin, Annie Doherty, Vincent C. Ellis, Daniel Hughes, Francis Humphreys, Thomas Kelly, William W. A. Kelly, Bernard Lagan, Patrick J. Lane, James M'Polin, B.Sc., Patrick Magner, William M. Morris, Michael P. Muldoon, Patrick D. Murphy, Patrick O'Connell, Thomas O'Connell, Michael F. O'Hea, Henry Raverty, Andrew Ryan, Patrick Stokes.

M.B., B.Ch., B.A.O. Degrees Examination.—Honours—First Class—James B. Magennis, B.A., B.Sc.; Patrick J. Smyth. Second Class—James I. Enright and William O'Neill, ex aeq. Pass—Phillip Carney, James I. Enright, Charles I. Hannigan, B.A., Malachy Heenan, Roger M'Grath, James B. Magennis, B.A., B.Sc., John Moonan, Edward J. O'Keeffe, B.Sc., William O'Neill, Patrick J. Smyth, Francis C. Ward. Pass in (Part I.) Medicine—Geo. Jackson. Exempt from further examination in the subjects set after his name—Bernard P. Hynes, Medicine and Midwifery.

M.D. Degree Examination.—Pass: Jeremiah Reidy, D.P.H., recommended for a gold medal.

Diploma of Public Health.—Pass—Patrick Steen, M.B., B.Ch., B.A.O. Pass in Part II.—Christopher Barragry, M.B., B.Ch., B.A.O.

Conjoint Examinations in Ireland.

THE following candidates have passed the examination by the Royal College of Physicians and the Royal College of Surgeons, October, 1914:—

Preliminary Examination.—Daniel D. Bulger, Michael N. Conway, Theodore A. Cronhelm, Victoria E. Davidson, John W. Dickson, Cecil W. Empey, Alfred James, Thomas J. Kerr, Jeremiah Lyons, James J. Lyons, Bernard A. McElhinney, Mossey Scher, James T. Sheffield, Alfred Shepherd, William E. Shipsey, Eileen Sullivan, Jessie R. M. Wallace, Wm. F. White.

First Professional Examination.—R. E. Connolly, B. Epstein, Miss E. Gleeson, S. J. Halpin, C. E. Herbert, F. R. Humphreys, E. D. Nolan, J. Power, R. A. Scott, A. A. Townsend.

MEDICAL WAR ITEMS.

A hospital, to be called the Baltic and Corn Exchange Hospital, is to be established in France, probably in the neighbourhood of Arras, under the management of Dr. Guest.

Queen Mary's Royal Naval Hospital, Southend-on-Sea, was opened last week for the reception of 200 wounded officers and men of the Belgian forces. The immediate need (apart from money, which is always necessary) is a large supply of blankets.

Sir Arthur and Lady Markham have placed their house, Beachborough Park, near Shorncliffe, and their staff of servants at the disposal of the Canadian War Contingent Association, and with the approval of the War Office, it has been organised and equipped as the "Queen's Canadian Military Hospital." Sir Arthur and Lady Markham have provided the hospital with complete X-ray apparatus. The accommodation consists of from 50 to 60 beds, all of which are now occupied by wounded from Antwerp. The medical, surgical, and nursing arrangements are under the supervision of Sir William Osler, M.D., F.R.S., and Mr. Donald Armour, M.B., F.R.C.S. Miss Amy MacMahon, of Toronto, is the Superintendent, and the nursing staff consists entirely of Canadian trained nurses. Lady Markham will take an active part in the general supervision.

Two sets of Red Cross poster stamps of unusual interest have been issued by the *Daily Mail* and *Evening News*. One is from designs of Mr. Frank Brangwyn, A.R.A., and graphically depicts the work of the Red Cross, and the second is a series of allegorical emblems by Mr. Edmund Dulac. Each set may be obtained for sevenpence, post free.

The War Office has issued the following through the Press Bureau:—"The Director-General of the Army Medical Service reports a highly satisfactory state of health of the armies camped, billeted, or quartered in the various commands at home. Nowhere is there any undue prevalence of preventable disease, and the massing of large numbers of men in the military and other stations under difficult conditions has not been accompanied by any untoward results. Concerning the health of the Expeditionary Force the Director-General reports an equally satisfactory state of affairs. He is satisfied that the utmost vigilance is being exerted to maintain the present position. To ensure still greater security Lord Kitchener has decided to establish at the War Office a Sanitary Committee, consisting of military and civilian members, to advise him on all matters affecting the health and well-being of troops at home and abroad. He is also sending the Director-General, Sir Arthur Sloggett, overseas to make a thorough inspection of the medical arrangements and co-ordinate the work of the Army Medical Services with the St. John Ambulance and Red Cross societies, of which he will be Chief Commissioner. Sir Arthur Sloggett will be accompanied by Colonel Burtchaell, Royal Army Medical Corps, as staff officer. During his absence at the seat of war Sir Alfred Keogh will act as Director-General at the War Office."

The Duke of Vendôme, brother-in-law of the King of the Belgians, last week visited St. John's Hospital, Lewisham, where some Belgian and British wounded are under treatment. He afterwards paid a visit to the London Hospital, where there are 320 wounded Belgian soldiers.

The Secretary of the London Hospital, Whitechapel, E., has prepared a list of the wounded Belgians now lying there. It is thought that among them there may be relatives of refugees who have come to this country. The hospital has a small fund and can help with the travelling expenses of those who are anxious to see their wounded relatives but cannot otherwise afford to do so. A large contingent of Belgian wounded have been received into St. Bartholomew's Hospital. Six of the men are at Fairfield House, St. Peter's, Broadstairs.

MEDICAL WAR NEWS.

It is reported that the number of doses of vaccine which have been supplied by the Inoculation Department of St. Mary's Hospital from the beginning of the war to the Allied Armies is 1,476,374; this means 166 gallons. These preparations have been made by the staff of the Inoculation Department under the supervision of Captain S. R. Douglas and Drs. Fleming, Mathews, Freeman and Haden.

In regard to reports of the prevalence of lockjaw among the wounded Allies, Messrs. Michelin et Cie., the well-known French tyre manufacturers, have offered to supply gratuitously any quantity of anti-tetanus serum for use by ambulances at the front. This patriotic offer has been gratefully accepted by the British and French War Offices.

The Local Government Board has warned every Medical Officer of Health in districts where troops are quartered that under present conditions the introduction of small-pox is not unlikely, and the prevention of the spread of the disease, if it should appear, will depend almost entirely on the efficiency of the arrangements made previously for dealing with and following up early cases. The three diseases for which, under present circumstances, a constant look-out should be kept are typhus fever, enteric fever, and small-pox. A large increase of hospital accommodation for enteric fever and possibly also for small-pox may be needed.

Captain E. S. B. Hamilton, R.A.M.C., who says he has been taken prisoner by the Germans in defiance of the Geneva Convention, contributes the following account of his experiences to the *Manchester Dispatch*: "As we went along the road we met troops retiring. Some of them were wounded, and we did what we could for them, directing the slightly wounded to go to our temporary hospital, and putting the severely wounded into the ambulances. For half an hour or more we worked like niggers, giving water, etc., to men almost dropping from fatigue, bandaging and carrying wounded. Then a mounted bugler of the Gordon Highlanders came galloping to say that a major of the Gordons was lying with his leg broken on the road not far from us. I took two stretcher bearers and started off to him. We made use of what cover there was, and rushed across the open spaces. It seemed a long road. At last a wounded straggler told us that the major had been taken into a big chateau which was flying the Red Cross flag. I went there and asked if there was a doctor in the house. If there had been I would have returned at once, as our orders were not to be captured. There was no doctor, so, of course, I went in. The major had a ball through his leg which had smashed the bone and made one small entrance and one big exit wound. I sent my two men back. I hope they reached our lines safe and reported that I was all right. I do not want to be posted as 'missing.' There were about a dozen wounded in the chateau beside the major. When I had fixed them all up I tried to get out, but a burst of firing hailed me as I came round the corner of the house. I found that it was impossible to leave, as the Germans had planted a large gun at the door. All Tuesday morning I was out with search parties looking for and burying the dead in the woods—it was a sad morning's work. I took the identification discs off the men's necks, their letters, money, etc., to be sent to their relatives later on. We buried the Highlanders together in the trenches they had defended so well."

NOTICES TO CORRESPONDENTS, &c.

☞ Correspondents requiring a reply in this column are particularly requested to make use of a *Distinctive Signature or Initial*, and to avoid the practice of signing themselves "Reader," "Subscriber," "Old Subscriber," etc. Much confusion will be spared by attention to this rule.

Original Articles or Letters intended for publication should be written on one side of the paper only and must be authenticated with the name and address of the writer, not necessarily for publication, but as evidence of identity.

Reprints.—Reprints of articles appearing in this Journal can be had at a reduced rate, providing authors give notice to the publisher or printer before the type has been distributed. This should be done when returning proofs.

Sir Victor Horsley's letter came to hand as we were "at press." It will appear in our next.

Dr S. T. (London, S.E.).—The name of the institution you mention does not appear in the list of sanatoria approved by the Local Government Board under the National Insurance Act, 1911, for the treatment of persons suffering from pulmonary tuberculosis.

THE COUNTRY DOCTOR.

Day in, day out, night out, night in.
Where snow is thick and fees are thin,
He hustles with his cheery grin
To fight with ills.
The drives are long, the nights are cold,
He suffers hardships left untold
To call upon some mother old
Across the hills.

Little he says about his pay;
Often he gives his skill away,
And tho' he's getting bent and gray
He has no wealth.
His life has been an endless trial,
His motto has been self-denial;
Freely he gives from every vial
For some one's health.

The gallant soldier goes away
While fife and drum and bugle play
Bravely to conquer or to slay—
That is his part.
The country doctor rides alone
Through rugged roads, o'er stick and stone,
To heal men, not to make them moan;
God bless his heart!

—William F. Kirk in the *New York Evening Journal.*

F R.C.S.Ed. (Brighton).—We understand that the War Office has accepted a gift of 500 gallons of acrosyl, which is a saponified cresylic disinfectant containing fifty per cent. of specially treated cresols, for distribution amongst the military hospitals in the United Kingdom.

Mr. E. Churchill (Southbrook).—Your letter arrived too late for insertion in the present week's issue.

Meetings of the Societies, Lectures, &c.

Thursday, October 22nd.

Harveian Society of London (Stafford Rooms, Titchborne Street, Edgware Road, W.).—8.15 p.m.: Exhibition of Clinical Cases.

Central Midwives Board (Board Room, Caxton House).—2 p.m.: A special (penal) meeting.

Friday, October 23rd.

Royal College of Surgeons of England (Lincoln's Inn Fields, W.C.).—Museum Demonstrations for Advanced Students and Medical Practitioners. 5 p.m.: Prof. A. Keith: Specimens illustrating Gunshot Injuries of the Limbs.

Monday, October 26th.

Royal College of Physicians of London (Pall Mall East).—4 p.m.: Harveian Oration: Sir R. Douglas Powell.

Medical Society of London (11, Chandos Street Cavendish Square, W.).—8.30 p.m.: Discussion on the "Operative Treatment of Tumours of the Cæcum and Colon," especially in relation to immediate resection, colostomy combined with secondary resection and short circuiting, to be introduced by Mr. H. J. Waring, Mr. James Sherren and Mr. E. M. Corner. There will also be an exhibition of specimens.

Vacancies.

Abbeyleix Union. Medical Officer and Medical Officer of Health.—Salary £130 per annum, with addition of £20 a year as M.O.H. Applications to Michael Maher, Clerk of Union. (See advt.)

Stirling District Asylum, Larbert, N.B.—Third Assistant Medical Officer. Salary £140 per annum, with board, etc. Applications to the Medical Superintendent.

The Metropolitan Ear, Nose, and Throat Hospital (1838) (Incorporated), Fitzroy Square, London W.—House Surgeon (non-resident.) Salary £150 per annum. Applications to John Mackinna, Secretary. (See advt.)

Clifden Union.—Medical Officer. Salary £160 per annum and £20 a year as Medical Officer of Health, with vaccination fees. Immediate application to F. King, Clerk of Union. (See advt.)

Rotherham Hospital.—Assistant House-Surgeon. Salary £125 per annum, with board, lodging, and washing. Applications to the Secretary, G. W. Roberts, 8, Moorgate Street, Rotherham.

Hulme Dispensary, Dale Street, Stretford Road, Manchester.—House Surgeon, duly registered and fully equipped. Salary £180 per annum. Annual increase £10 to £200, with apartments, attendance, coal and gas. Applications, with testimonials, at once to Honorary Medical Secretary. (See advt.)

Putney Hospital (Chester Bequest), Lower Common, Putney, S.W.—Resident Medical Officer. Salary £150 per annum, with rooms, board, and laundry. Applications to the Hon. Secretary at the Hospital.

Great Yarmouth Hospital.—House Surgeon. Salary £140 per annum, with board, lodging, and washing. Applications to Richard F. E. Ferrier, Hon. Secretary, 16, South Quay, Great Yarmouth.

West Suffolk General Hospital, Bury St. Edmunds.—Resident Medical Officer. Salary £160 per annum, with board, lodging, and laundry. Applications to the Secretary

Appointments.

Graham, J. M., F.R.C.S.Edin., Specialist in Operative Surgery at the Military Hospital, Edinburgh.

Hawkins, Arthur, M.R.C.S., L.R.C.P.Lond., Assistant Physician to the Nordrach-on-Dee Sanatorium, Banchory.

Lawrence, H. H., L.R.C.P. and S.Edin., L.F.P.S Glasg., Certifying Surgeon under the Factory and Workshop Acts for the Patterdale District of the county of Westmorland.

Macnicol, M., M.D.Glasg., Certifying Surgeon under the Factory and Workshop Acts for the Leven District of the county of Fife.

Rollinos, J. W., L.M.S.S.A., Medical Officer of Health to the Luton District Council.

Scott, W. M., M.B., Ch.B.Edin., Medical Officer of Health of Sittingbourne during the absence of Dr. T. B. Heggs on Territorial Service.

Births.

Caddy.—On October 13th, at Richmond, Surrey, the wife of Dr. Adrian Caddy, F.R.C.S., of Calcutta, of a daughter.

Fennell.—On October 17th, at The Manor House, West Hoathly, the wife of Charles Henry Fennell, M.D., of a daughter.

Good.—On October 13th, at High Bickington, N. Devon, the wife of Arnold Saxty Good, M.R.C.S., L.R.C.P., of a daughter.

Mitchell.—On October 16th, at 71 Craven Park, Harlesden, the wife of Dr. G. H. Mitchell, of a daughter

Neave.—On October 7th, at St. Osyth, Colchester, Essex, the wife of Lionel Digby Neave, B.A.Oxon., M.R.C.S., L.R.C.P., of a son—Nelson Digby.

Marriages.

Smith—Hamilton.—On October 17th, at St. Mary Magdalen's, Mortlake (quietly, owing to the war), Hector Smith, M.B., B.S.Lond., R.A.M.C. (Special Reserve), elder son of Col. F. Smith, R.A.M.C., D.S.O., to Ada Maud Hamilton, youngest daughter of Dr. Hamilton, Essex House, Barnes, Surrey.

Taylor—Davies.—On October 12th, at the Cathedral, Singapore, Leonard Herbert Taylor, M.B., B.S.Lond., of Kota Bharu, Kelantan, Federated Malay States, eldest son of Herbert Taylor, M.B., M.R.C.S., of 180 Kennington Park Road, London, to Truda, twin daughter of the Rev. E. J. M. Davies, vicar of Walton-le-Dale, Preston, Lancashire.

Deaths.

Crampton.—On October 13th, at 30 Myddelton Square, London, E.C., Thomas Hobbs Crampton, L.R.C.S., and P.I., aged 57.

Drysdale.—On October 17th, after a short illness, at 47 Rotherwick Road, Hampstead Garden Suburb, Eva Mary, the beloved only child of Dr. and Mrs. C. V. Drysdale, aged 13 years 10 months.

Hamilton.—On October 14th, at Jail House, Alipore, Calcutta, Louise, wife of Major W. Gavin Hamilton, I.M.S.

Macalister.—On October 9th, at Forfar, John David Love Macalister, M.B., C.M.Edin., aged 45.

Macrobin.—On October 14th, at 90 Campden Hill Court, Kensington, W., Andrew Arthur Macrobin, Lieut.-Col., late Army Medical Staff.

Macquibban.—On October 16th, at 248 Union Street, Aberdeen, Isabella Monro, wife of Surgeon Lieut.-Col. C. M. Macquibban.

Mills.—On October 9th, at Vine Cottage, Donaghmore, Newry, Co. Down, Dr. Samuel Mills, B.A., for nearly 31 years Medical Officer of Donaghmore Dispensary District, in his 77th year.

Mulkern.—On October 13th, at 1 Brunswick Road, Kingston-on-Thames, Florence Emily Mulkern, the wife of Hubert Cowell Mulkern, M.R.C.S., L.R.C.P., after a long and painful illness.

Pern.—On October 12th, at Botley, Hants, Alfred Pern, F.R.C.S., L.R.C.P., aged 70 years.

HULME DISPENSARY.

DALE STREET, STRETFORD ROAD, MANCHESTER.

WANTED, a HOUSE SURGEON duly registered and fully qualified. Salary £180 per annum. Annual increase £10 to £200, with apartments, coal and gas. Applications, with testimonials, at once to Honorary Medical Secretary.

THE MEDICAL PRESS AND CIRCULAR.

"SALUS POPULI SUPREMA LEX"

VOL. CXLIX. WEDNESDAY, OCTOBER 28, 1914. No. 18.

NOTES AND COMMENTS.

Wound Tetanus. THE reported occurrence of numerous deaths from tetanus among wounded soldiers at the front reminds us that this fatal complication still baffles the skill of modern medicine. The main facts of the malady are well known and it is now many years since the specific pathogenic organism was identified. The "drum stick" form of the sporulating bacillus furnishes an attractive slide under the microscope. As an earth-dwelling organism it is specially likely to affect wounds inflicted in trenches, where the men are in close contact with freshly turned soil. Nor is it easy under fire for the surgeons to secure a thorough cleansing of wounds that have been contaminated with earth. The modern treatment with antitetanic serum, from which so much was expected, has proved disappointing. Its chief value is prophylactic, and it is of little use as a curative agent unless administered at once in a full dose. As tetanus has an incubation period from about five days to three weeks, it is difficult to say in what cases it would be desirable or advantageous to give a dose of serum. In the hurry of field surgery it would be out of the question to attempt its administration, even if it were confined to those suffering from wounds obviously contaminated with earth. It seems somewhat of a reproach, however, if modern surgery, as applied by our highly trained military surgeons, should not be able to find some means of excluding tetanus from the complications of wounds inflicted in action.

Why not give a Prophylactic Serum? THE question naturally arises, Could not a prophylactic serum be given to all soldiers going to the front? There is no more risk in its administration than in ordinary vaccination against small-pox, or in anti-typhoid vaccine? If the soldier is to be protected against small-pox, which after all said and done, is a somewhat remote danger at the present day, and against enteric fever, why should he not be equally protected against the far more deadly malady, tetanus? It is a sad thing to see soldiers die an agonising death from a complication that is to some degree preventable by scientific prevention. The merest scratch is practically almost as dangerous as a deep wound so far as infection by the tetanus organism is concerned. The matter of routine protection against tetanus of all troops going to the front is worthy of the serious attention of the Army Medical Department, who have shown themselves ready in other ways to avail themselves of modern scientific methods. It would probably be out of the question to attempt any such measure with the troops actually in the field, but it would be possible to protect all reserve troops at home. As a matter of fact anti-typhoid inoculation has, we believe, been applied only to that small proportion of our soldiers in France which has been despatched to the front within the past few weeks.

German Army Medical Losses. THE modern battle-field, with its long range fights along an enormously extended front, must necessarily involve great risks to that part of the Army Medical Service which works under fire. The British casualty list has already been heavy, and there is reason to fear that it will be considerably enlarged when the results of recent encounters are announced. On the side of the Germans it has been announced with every appearance of accuracy that their Military Medical Staff has lost seventy-four killed, thirty-seven wounded, thirteen missing and three prisoners. This list seems to be not improbable notwithstanding the careful editing given to all official reports from German headquarters. A similar credibility, however, cannot be accorded to the statement that the Austrian Medical Corps has lost eight killed, thirty-five wounded and one missing. Considering the vast number of soldiers engaged and the huge losses in fighting of both Russians and Serbs their medical casualty list must have been far greater, unless, indeed, it was a grossly undermanned branch of their army organisation. The German Medical Service was organised on as lavish and consummate scale of efficiency as any other department of her military machinery. As the result of prolonged fighting the stress upon the army hospitals has been overwhelming, and it is not surprising that rumours are afloat as to the partial breakdown of the medical service in France and Belgium. The retreat of the Germans to their own frontier would inevitably be attended with terrible hardships to their sick and wounded.

The Standard for Recruits. THE War Office has issued a poster calling for more men "to complete the second half million" for Lord Kitchener's new army. During the first rush of recruits the standard of height was raised, an act of doubtful diplomacy, as it not only excluded many useful men, but gave rise to the impression that the Government had enough recruits. The standard is now reduced to five feet four inches, a reasonable height enough for soldiers, provided they are sound in other ways. It is, of course, necessary to fix standards and to maintain them with a certain amount of firmness when recruits are plentiful and the State can afford to pick and choose. At the present moment, however, the nation is in the grip of a war greater than any it has yet been called upon to encounter. The greater part of the new army, so it is understood, joins the Colours for the period of the war only, so that it is a mere counsel of perfection to insist upon a recruit coming up to any high standard as to teeth, stature, size and expansion of chest, and so on. So long as a man is organically sound and can see well enough to shoot an enemy at, say, 200 yards, it cannot much matter if he is minus half-a-dozen molars, or has such minor defects as moderate varicose veins or varicocele, or a small expansion of the chest, provided there is no actual pulmonary disease and the air enters freely all parts of the lungs. Then, again, the arbitrary age limit of thirty-five has been raised to thirty-eight years. There might well be further elasticity in the matter, leaving exceptional cases to be dealt with, say, by a medical board. Many men of fifty or more are tough and hardy, and perfectly well able to undergo the hardship of a campaign. These remarks, naturally, do not for a moment question the general principle that demands the best possible standard for our fighting men.

British Scientists and the War.

During the past week a carefully-reasoned statement has been issued by a number of eminent men of science representing various fields of intellectual activity in Great Britain as a reply to the manifestoes of several German University Professors and others representative of German "culture" and learning. The British manifesto maintains that "it is the duty of learned men to make sure of their facts," and it urges the German scientists to get access to the full correspondence regarding the origin of the war, from which it is hoped they will form an independent judgment. Among the distinguished signatories are the names of the following seventeen leaders of the medical profession:—Sir Clifford Allbutt, K.C.B., Regius Professor of Physic in the University of Cambridge; Sir Charles Ball, Bart., Regius Professor of Surgery in the University of Dublin; Sir Thomas Barlow, Bart., K.C.V.O., President of the Royal College of Physicians of London; Sir Watson Cheyne, Bart., President of the Royal College of Surgeons of England; Sir James Crichton-Browne, M.D.; Sir Rickman Godlee, Bart., K.C.V.O., Emeritus Professor of Clinical Surgery, University College, London; Prof. J. S. Haldane, Oxford University; Sir Wilmot Herringham, Vice-Chancellor of the University of London; Sir Donald Macalister, K.C.B., President of the General Medical Council; Sir William Macewen, Professor of Surgery, Glasgow University; Sir Patrick Manson, G.C.M.G.; Professor Frederick W. Mott, Royal Institution; Sir William Osler, Bart., Regius Professor of Medicine in the University of Oxford; Sir Isambard Owen, Vice-Chancellor of the University of Bristol; Sir Ronald Ross, K.C.B., Nobel Laureate; Sir William Turner, K.C.B., Principal and Vice-Chancellor of Edinburgh University; and Sir Almroth Wright, formerly Professor of Pathology, Army Medical School, Netley.

The Medical Roll of Honour.

Only one casualty, according to official accounts, has been reported among officers of the Royal Army Medical Corps since our last issue, Capt. R. E. Porter, R.A.M.C., being among the wounded in the Expeditionary Force. The Secretary of the Admiralty announces that Staff-Surgeon Louis L. Greig, M.B., R.N., of the Royal Naval Division, is a prisoner of war in Germany. The following officers are unofficially reported prisoners of war:—Capt. D. M. Corbett, R.A.M.C., Capt. G. H. Rees, R.A.M.C. (previously reported missing), and private information has been received that Lieut. T. E. Hepper, R.A.M.C., is a prisoner of war at Torgau.

LEADING ARTICLES.

THE "DR." MILLER SENTENCE AND ITS MORAL.

At the Old Bailey last week the notorious American faith-healer, Orlando Edgar Miller, of the Miller Institute, Isleworth, was sentenced to three months imprisonment in the second division. The indictment on which he was found guilty was that of the manslaughter of Miss Scott, who entered the Institute suffering from a form of paralysis, for which she was treated by accused with hyoscine. After five days under his care this unhappy lady died, and was seen by a qualified medical man only a short time before death. The man Miller has figured in various Coroners' Courts, but has hitherto escaped prosecution. He proclaims himself to be an exponent of "Higher Thought and Faith Healing"—whatever that jargon may mean, and at the trial he declared he had at one time charge of all the cases of delirium tremens in Chicago. It is not stated why he threw up what must have been an extremely lucrative practice in that great American centre, but from our own point of view what was Chicago's gain was London's loss. The ease with which American charlatans exploit the British public throws a lurid light upon the extreme laxity of our laws against medical impostors. Of late the United States have strengthened legislation against quacks and quackery with the result of an increasing exodus of that particular form of knavery across the Atlantic. Among recent offenders the memory of the notorious "Dr." Crippen is still comparatively green, and it may be recalled that he, too, used hyoscine, one of the most potent drugs known to medical science. The mere fact that several years after Crippen's execution another medically unqualified American should be found to be freely administering hyosoine to Englishmen, shows once again how slow the legislature is to take action where poisonous drugs and quacks are concerned. Giving evidence on his own behalf, defendant said he thoroughly understood the drug in question and had treated more patients with it than any physician on earth. This characteristic touch of rhodomontade is not probably without some basis of truth, inasmuch as the use of hyoscine in legitimate medical practice is practically confined to the treatment of certain forms of maniacal violence. He added the statement that he came to this country at the invitation of the Duke and Duchess of Manchester. The fact that his pretensions were thus supported illustrates the lamentable fact that high social position with its connoted education and knowledge of the world affords no protection against the wiles of the charlatan. It may be hoped that the sentence passed upon Miller last week will serve as a warning to others of our nobility who may be inclined to accept so great a responsibility as that incurred by the Duke and Duchess of Manchester, in importing a medically unqualified American to treat inebriety and other diseases in England. Amongst other maladies which Miller professed to cure was that of consumption, a disease that furnishes a happy hunting ground to adventurers of his kidney. For the present he has escaped with the extremely lenient sentence of three months' imprisonment in the second division. The learned judge, Mr. Justice Rowlatt, excused this ludicrously inadequate punishment by expressing a hope that it would show to all others, with no knowledge or a little knowledge of medical matters, the risk of using dangerous poisons. He would not punish the prisoner severely because he hoped this conviction would check the practice, but he warned others that next time the sentence would be heavier. The time-honoured tradition of leniency towards medical charlatans that has become a tradition in British Courts has thus been again upheld. The Miller sentence is adequate neither from a punitive nor a deterrent point of view. It shows the need for drastic revision of British law with regard to unqualified medical practice, and emphasises the urgent need of a Government enquiry as the plain and simple corollary of the recent Select Committee upon proprietary remedies.

CURRENT TOPICS.

The Medical *Register*.

Once again the General Medical Council calls attention to the fact that technically no man is a "legally qualified medical practitioner" unless his name appears upon the *Register*. As the names of medical men who cannot be traced are "reluctantly" erased from the official list, it follows that carelessness may saddle a reputable medical man with the disabilties and inconveniences attached to disregistration. If a medical man not on the *Register* signs any one of a large number of certificates the document may be disputed and treated as invalid in a court of law. The full meaning of that statement may be gathered when it is realised that rejection may await such documents as certificates, notifications, reports, and so on, under the statutes relating to births, deaths, or disposal of the dead; lunacy; vaccination; factory acts; education; public health; workmen's compensation; insurance; old age pensions; merchant service; for excusing attendance in law courts, etc., etc. Medical practitioners who are not on the *Register*, or whose names have been removed owing to neglect in notifying change of address, should at once communicate with the Registrar of the General Medical Council, whose letter in our correspondence column may be commended to the attention of readers.

Drill Corps Dangers.

Since the beginning of the war there has been an epidemic of unaccustomed exercise among certain sections of the community. We are not referring to the organised and properly directed training of the new Army and the Reservists, but to the more amateur efforts of enthusiastic civilians who have resolved themselves into the various drill and home defence corps that now abound. The men who make up the personnel of these bodies are of all ages, from the military age upwards. The fate of the younger members need not trouble us; they are able to look after themselves. Many of them ultimately enlist, and are no more seen in their native drill-hall. At any rate, a little extra physical work will do them no harm. The members whom we are most immediately concerned with—and for—are the older ones, the men, say, from 45 to 60, many of whom have hitherto led lives sedentary in the extreme, and whose only physical exertion has been the bi-weekly round of golf. Unaccustomed and strenuous exercise must have some effect on those. Their motives in drilling are three-fold. Some think the exercise good for them and find the novelty amusing, and they have vague ideas that they may some time be wanted. They reduce their waist measurement and increase their efficiency at the same time. Others drill for the sake of example to the rising generation, and the third class consists of patriots who are convinced that by learning to turn smartly to the right when told to do so they are really helping to maintain the Empire. It is this last division that gives us in our professional capacity the most misgiving. Enthusiasm plus excessive exercise plus anno domini means trouble. The fitter men are finding themselves better than they ever were before. Dyspepsia and coprostasis are on the wane. But the older hearts are failing. The spur of patriotism and the objurgations of the sergeant allow no respite. The penalty will be paid in dilatation. We believe in drill, and think there is some benefit in military training. But some men are too old to begin now. And these men are the most energetic. They are so keen on showing the world their physical prowess that they never say die. If they do not take care Nature, which brooks no trifling with her laws, will take the word out of their mouths.

Insanity and Political Feeling.

An interesting subject of study which has not yet received its due attention would be the influence which current events exercise on the occurrence of insanity and the forms it takes. In his annual report on the Down District Asylum, Dr. M. J. Nolan, the resident medical superintendent, has some remarks to make on the subject, as it affected his work during the past year. In his opinion, the political excitement of the past year or two in Ulster was in some cases undoubtedly "the exciting cause of the break-down; in others it unquestionably shaped the form of the attack which would have occurred in any event." It appears, therefore, that in a certain number of cases of mental instability excessive political or religious excitement may drive the individual across the border-line into actual insanity. The influence of political ferment on the form of insanity is no less interesting. Instead of the "voices," "vague fears," and "unknown enemies" which were previously the complaint in the majority of cases of delusional insanity, Dr. Nolan nows finds that the "voices" have become the definite commands of opposing factions in political and sectarian strife, the "vague fears" are the acute terrors of civil war, and the "unknown enemies" have taken definite shape as Orangemen or Hibernians as the case may be. We may expect within the near future that the war which now occupies so much of our thoughts, will exert a similar influence on the minds of the mentally unstable among us.

The Vaccination Order, 1914.

A circular letter has recently been addressed to boards of guardians by the Local Government Board adverting to the instructions to vaccination officers contained in the Vaccination Orders, under which it is the duty of the vaccination officer in certain circumstances to give notice and to make inquiry in the Form Q, set forth in the schedule to the Vaccination Order, 1910. It has been found in some cases that this form has been read as implying that a statutory declaration under Section 1 of the Vaccination Act, 1907, is valid if made within seven days after the child is four months old. This is not the case. The Act requires that the declaration shall be made within four months from the birth of the child, and that it shall be delivered or sent by post to the vaccination officer of the district within seven days thereafter. The Board have now issued an Order rescinding the Order of 1910, and substituting a new Form Q for the Form which was prescribed by that Order. A paragraph has been added inviting the parent to inform the vaccination officer if he proposes to have the child vaccinated by some doctor other than the public vaccinator. In cases where the request is complied with, the vaccination officer should add a footnote to Form H, informing the public vaccinator of the fact, so that the public vaccinator in arranging his visits may be aware of the expressed intention of the parent, and may be able to defer his visit to those parents if for the convenience of his practice he should desire to do so. The clerks of boards of guardians have been supplied with copies of the Order and of the covering circular for distribution amongst all public vaccinators and vaccination officers in their unions.

A Study of Snake Bites.

A VERY comprehensive account of the mechanism and treatment of snake-bite has been published in the *Indian Journal of Medical Research* by Captain Hugh W. Acton, I.M.S., and Captain R. Knowles, I.M.S., Directors of the Pasteur Institute of India. These observers have prosecuted their researches into the efficacy of some two hundred vaunted remedies for snake-bite, including such well-known substances as permanganate of potash, gold chloride, iodine trichloride, antivenenes, etc. In spite of all the wiles of the professional charmer, the handling of poisonous snakes requires as much skill as is demanded from a trainer in breaking in a horse. When once the reptile is secured, it is made to bite through a rubber diaphragm stretched over a venom glass, and when the fangs are anchored into the rubber, the operator proceeds to " milk " the poison glands by pressure. The common cobra is, par-excellence THE poisonous snake of India, though the venom of the hamadryad is more toxic. The common krait has also a very deadly bite, but it is a sluggish reptile. The venom of the Russell's viper shows a marked tendency to produce gangrene in such cases as escape death from hæmorrhage, while that of the *Echis carinata* possesses this property to a less extent. The bite of the common green pit viper and probably the bites of all the Indian species of the genera *Lachesis* and *Ancistrodon*, are rarely, if ever, fatal to man. The value of local remedies is limited to those cases in which they are applied before the minimum lethal dose has been absorbed into the circulation, and they can only counteract whatever poison happens to remain in the wound. The favourite " cure " by incision and the rubbing in of potassium permanganate together with ligature can only be effective when the case is seen immediately. Immediate amputation in poisoning by columbrines and viperines may be necessary to save life. Several factors tend to reduce the mortality from snake-bite, such as blind strikes, miscalculation, and other factors due to the snake itself, and also interposition of clothing and dislodgment of the reptile by the person attacked before the snake has had time to close its jaws. The excellent photographic illustrations of the manipulations of poisonous snakes and the many charts and tables in this valuable paper are full of interest to those practitioners who have much to do with the treatment of snake bites.

The German Birth-Rate.

AMONGST all the excellencies and perfections of Germany which we have been brought up on, and which we are now out to dispel once and for all, the splendours of her birth-rate have stood prominent. France, we have been told, is dwindling rapidly to extinction, and England is fairly on the way to follow her example, while Germany, with a more than Machiavellian policy of frightfulness, was preparing to swamp and replace the other nations of the earth by the sheer force of her prolific populace. It was indeed a fearful prospect, but it was untrue. Like so may others Teutonic illusions emanating from official and other sources, the fear of the figures is doomed. Our misgivings are out of date. It is quite true that the thirty years following the Franco-Prussian War saw Germany with an enormously increasing population, while that of France stood still; but the progress ceased with the nineteenth century. Dr. von Gruber refers to the subject in the *Münchener Medizinische Wochenschrift*, and points out that while the marriage-rate remained fairly constant (80 per 10,000 inhabitants) during the period 1900-1910, the birth-rate sank from 370 to 310. This decrease was, as is usual, most marked in the cities. In Berlin the decrease per 10,000 inhabitants is from 149 in 1876 to 93 in 1912, but the country districts show a like result. Von Gruber places the responsibility for the decrease on the usual causes, which may be summed up in a word as civilisation—but perhaps a less interested observer might not have been so sure of his ground. At any rate, we are gradually reducing our old illusions about Teutonic omnipotence to something nearer the earth. We are not yet swamped by a decadence that only existed in our introspections. As a nation we are keeping our place on the population chart as well as the rest. Germany has shown that in this respect, as in many others, she is not really so much our marvellous superior as we were given to thinking.

The Relationship of Food to the Composition of the Urine.

THE normal acidity of human urine, as is well known, is due to the presence of acid sodium phosphate. It is possible to influence the degree of this acidity by diet, and this fact is largely taken advantage of in the therapeutics of certain affections of the urinary tract. A comprehensive study of the urinary acidity in relation to the different classes of food-stuffs ingested has been undertaken by Dr. N. R. Blatherwick, of New Haven, Conn., (a) who has conducted a series of experiments upon the living subjects. He has found that, as was to be expected, those foods which yield an alkaline ash decrease the urinary acidity, while those giving an acid-reacting residue increase this factor. Certain vegetables and fruits, on account of their preponderance in basic elements, lead to the formation of less acid urines, such as potatoes, oranges, raisins, apples and bananas. On the other hand, prunes, plums and cranberries cause an increased acid production, and this is attributed to the quantity of benzoic acid which they contain, and this leads to the formation of hippuric acid. Rice and wholemeal bread increase the urinary acidity. If the acid theory of Fischer be correct—namely, that the presence of acid favours the solution of the renal colloids, thus giving rise to albuminuria, then the treatment indicated is the introduction of bases in order to overcome this increased acidity. The administration of the alkaline salts, such as citrates and bicarbonates, has much the same effect upon the urinary composition as taking the appropriate fruits and vegetables, but the latter course is more pleasant. The value of such diets in the treatment of persons subject to uric acid calculi is thus apparent.

(a) *Archives of Internal Med.*, No. 3, 1914.

Eugenics and the War.

The consequences of the depletion of the male element of the population, owing to the war, must be viewed with some apprehension, not only by the belligerent nations themselves, but also by impartial scientific observers in all lands. It is premature to speculate upon the numerical proportions that will exist between the sexes at the conclusion of the present strife, so far as this country is concerned, but it must strike the most indifferent that the progress of race development from the purely eugenic standpoint will hardly be advanced in the years that are to come. In our own country, as the *Eugenics Review* tritely remarks, the sample of those killed will not be the average of the race, but the best type of the race. If it be true that the cream of the race will be taken and only the skimmed milk left, then the ultimate effect upon the nation must be injurious. A certain amount of the cream is, we venture to think, still left behind. While not wholly sharing our contemporary's pessimism, we freely admit that there exists a great need at the present time to safeguard the physical interests of the rising generation as well as those of that yet unborn. Under these circumstances no restrictions should, therefore, be placed in the way of those who desire to marry before leaving this country, but at the same time there must be a reasonable guarantee for the well-being of the wife in her husband's absence. In the case of the middle classes, as well as among the poorer section of the community, adequate provision must be made for the wives and young families of those who have sacrificed so much for the defence of their country. It is to be hoped that the Government may feel their responsibility in connection with the care of maternity in time of war. The proposed formation of local relief committees under Government support will go some way towards meeting the present necessity, and we may look forward, doubtless, to a more comprehensive scheme in the near future.

The Value of Expectorants.

An expectorant drug is usually defined as one which facilitates the excretion of mucus from the bronchial tubes, rendering this more fluid and so assisting in its removal from the air passages. The chief agent in the latter process is the action of the cillæ which line the mucous membrane of the lower portion of the respiratory tract, whereby an upward current is continually set up conveying mucus and any minute foreign body which it happens to contain towards the upper air passages. From these regions it is disposed of by expectoration or by the act of swallowing. The amount of clinical and experimental work that has been done in connection with the estimation of the true value of expectorants is not extensive, and therefore an account of the researches into the subject by Dr. Joseph L. Miller, of Chicago, (a) may be studied with interest and profit. Ammonium carbonate, one of the most widely used, perhaps, of all the expectorants, was injected into the duodenum of dogs and the increase in weight in a piece of rolled filter paper placed in close contact with the tracheal mucous membrane was noted after a certain period of time. Ipecacuanha and apomorphine were employed in a similar manner, emetin hydrochloride being given in the former case. It was found that ammonium carbonate and chloride and the emetic group of expectorants such as ipecacuanha and apomorphine, when given in sufficiently large doses to animals, increase the bronchial secretion. Antimony, the iodides, senega and squill, in addition, are known to stimulate the secretion of bronchial mucus. It is believed that some of these drugs may excite the bronchial gland centre, which, in its activity, shows a certain parallelism with the salivary centre. Pilocarpin, on the other hand, stimulates the bronchial glands directly.

PERSONAL.

Dr. E. MacD. Cosgrave, M.D., F.R.C.P.I., has been elected President of the Royal College of Physicians of Ireland.

Mr. J. W. B. Hodsdon, F.R.C.S.Edin., has been elected President of the Royal College of Surgeons, Edinburgh, for the ensuing year.

Mr. G. M. Graham, F.R.C.S.Edin., has been appointed Surgeon to the Cragleith Hospital.

Dr. Edmund Hobhouse, of Hove, has been placed on the commission of the peace for that borough.

Mr. Meredith Townsend, M.R.C.S., L.S.A., has been elected Master of the Society of Apothecaries.

Among the justices of the peace sworn in at Gateshead Police Court the other day were Drs. F. S. Leach and John Todd.

Dr. Herbert Jones, D.P.H., has been elected President of the Society of Medical Officers of Health for the ensuing year.

Mr. F. F. Burghard, M.S., F.R.C.S., Surgeon to King's College Hospital, London, has been appointed Consulting Surgeon with the British Forces overseas, and has already left for France.

Dr. Nestor Tirard, M.D., F.R.C.P., will deliver the Bradshaw Lecture before the Royal College of Physicians of London on Tuesday, November 3rd, at 5 p.m., on "Some Clinical Contributions to the Study of Glycosuria."

Dr. Norman Moore, M.D., F.R.C.P.Lond., Honorary Fellow of St. Catherine's College, Cambridge, will deliver the Rede Lecture in the Senate House of the University of Cambridge on Thursday, November 12th, at 5 p.m., on "St. Bartholomew's Hospital in Peace and War."

Drs. H. J. Cardale and J. Fletcher Porter will introduce a discussion on "The Certification of Invalidity under the National Insurance Act" at the next meeting of the Life Assurance Medical Officers' Association to be held on Wednesday, November 4th, at 5.30 p.m. in the rooms of the Royal Society of Medicine.

(a) *Amer. Journ. Med. Sci.*, October, 1914.

CLINICAL LECTURE

ON

THE RECOGNITION OF HÆMIC INFECTIONS OF THE URINE: ITS CLINICAL AND EXPERIMENTAL VALUE.

By EDWARD C. HORT, F.R.C.P.Edin.,

Late Assistant Physician, Italian Hospital in London.

(Concluded from page 422.)

I come now to hæmic infections of the urine in typhus fever, though in order to make clear the points we wish to make it is first necessary briefly to review the present bacteriological status of this disease.

In typhus fever, as is well known, a great deal of attention has been paid in recent years to the bacteriology of the blood in man, in the hope of discovering therein the causal organism. In spite, however, of this, the infective agent is still unknown. It is true that in a large number of cases coccal and bacillary organisms of considerable size, varying from 1 to 3 microns or more in their greatest diameter, have been seen in fresh films and have been cultivated from typhus blood by many different observers, some of whom have believed them to be responsible for the disease. We have, for example, the Diplococcus exanthematicus of Dubieff and Bruhl in 1894, the bacillus of Hlava of Prague in the preceding year, the large dumb-bell organisms of Mott and Blore, and the Diplococcus and Diplobacillus of Wilson of Belfast in 1910, which he believed to be secondary organisms only. We have, in addition, the Diplobacillus exanthematicus of Marcus Rabinowitsch, which has been also independently described by Müller, by Fuerth, by Predjetschensky, and, finally, by Plotz at the beginning of this year. So far as we can discover, however, in the case of none of these organisms was the test applied of reproduction of the disease in monkeys by injection of the organisms in question, and it appears to be generally admitted that the ætiological relationship of these different claimants has not been established.

In 22 recent cases of the disease occurring in Ireland in Belfast, Dublin, and County Clare, we have examined the blood both by immediate film preparations and by cultivation, and have without difficulty obtained and identified the so-called diplococcal and diplobacillary organisms described by many of the authors mentioned. We have indeed gone further and have found that injection of cultures of these organisms in citrated human blood, on which growth is readily obtained, has in no case produced any observable pathogenic effects in the series of bonnet monkeys selected for experiment. We conclude, therefore, that these large organisms are not themselves responsible for the production of the disease, and that they are either secondary invaders, perhaps from the bowel, as has been suggested by many authors, or that they represent harmless phases in the life history of some previously undescribed organism. The fact, however that they produce no fever when injected into monkeys, and the constancy with which they may be cultivated from typhus blood, makes the theory of secondary invasion somewhat difficult to support.

The well-known work on the transmission of typhus by Nicholle, Conseil and Conor, and of Anderson and Goldberger, clearly established the infectivity of human typhus blood when injected into healthy monkeys. But these observers do not appear to have fully studied the bacteriology of the typhus blood they injected. The result is that it has been till now quite impossible to say whether the continued fever that can readily be induced in bonnet monkeys by the injection of human typhus blood is caused by the large organisms referred to, or by some other infective agent hitherto undescribed which may or may not be the cause of typhus fever. In other words, no evidence has as yet been brought forward that the so-called "typhus classique" of the monkey described by the French observers is in actual fact typhus fever, beyond the production in the monkey—after the lapse of an incubation period—of a continued fever which is but rarely accompanied by a rash. And this also applies to the work so far published on the transmission of the disease from man to monkey, and from monkey to monkey by the body louse, though the fact of transmission of the disease from man to man by this agent can hardly now be questioned.

The fact, however, that we have been unable to produce fever in bonnet monkeys by injection of the large organisms referred to supports to some extent the view of the French and American workers that they have been able to reproduce the disease in monkeys.

And this view is further supported by the following abstract of our work, which will be published, with all the necessary protocols, in a short time.

In recent bacteriological work on typhus little or no attention appears to have been paid to the urine.

We therefore carefully examined the urine, by immediate examination of fresh specimens and by cultivation, in all of the 30 cases that were placed at our disposal.

In the great majority of these the fresh urine during the period of fever was found to be turbid from the presence of micro-organisms, and in many cases the degree of turbidity was extreme, even apart from deposits of urates or phosphates. Slight traces of albumen were found in a few cases, but in none was there any evidence of pus or of blood, and in no case was there any clinical evidence of disease of the genito-urinary tract. Both in catheter specimens in the two sexes and in non-catheter specimens the bacteriological findings in films made from the fresh centrifuged urine were strikingly similar, and were in fact so constant as to establish a valuable aid to rapid diagnosis of the disease. In all of the urines examined before the crisis great numbers of the large coccal and bacillary organisms morphologically similar to those found in the blood were observed, and their identity was in many cases established by their behaviour on cultivation and on sugars. In each case there were also present in the deposits of the fresh urine minute organisms which occurred singly, or in pairs, or in clusters. These could most easily be recognised as micro-organisms if they were examined with a 1/12th oil immersion Fluorite lens, or, better still, by a 1.5 m.m. apochromatic. The organisms that occurred singly or in pairs required, as a rule, prolonged search before they could be demonstrated. When in clusters, as well as when occurring free, they were sometimes coccal in form, sometimes bacillary, and often it was impossible to determine whether they were coccal or bacillary. They were both Gram-positive and Gram-negative in the same clusters, they had no apparent capsules, and they were non-motile. They varied in size from about 0.1 or 0.2 of a micron to about 0.5 micron in their greatest diameters when in pairs, and when occurring singly their greatest diameter was proportionately smaller.

They rapidly disappeared from the urine when this was incubated, and after a few hours the larger cocco-bacillary forms only could be found, and these readily multiplied both in urine and in, or on, the ordinary laboratory media.

Injection of these cultures into bonnet monkeys produced no apparent pathogenic effect, as we had also found to be the case with cultures of the same organisms from the blood.

After filtration of the urine through tested Berkefeld candles we were able in many cases to show, by immediate examination of the filtrate, the small cocco-bacillary forms freed from admixture with the larger non-pathogenic organisms. When, however, the filtrate was incubated they quickly disappeared, their place being taken by large coccal and bacillary organisms, which also proved, on injection into bonnet monkeys, to be non-pathogenic. And in the case of cultures on the ordinary laboratory media which had been inoculated with the fresh filtrated urine the small cocco-bacilli did not survive, only the larger non-pathogenic organisms being found.

Numerous attempts were then made by plating, and by the method of dilution, in the case of filtered and unfiltered urine, to separate the small coccal forms from the small bacillary forms, but always without success, though in some colonies the coccal form predominated and in others the bacillary. The medium employed in this set of experiments was human blood agar.

The urine of bonnet monkeys successfully inoculated with human typhus blood contained, we found, during the period of fever, large numbers of the small and large cocco-bacillary forms described, provided that it was fresh, and the filtrate of this urine when fresh also contained the smaller forms alone. If, however, incubation were allowed for a few hours they could no longer be found, their place being again taken by the large non-pathogenic forms.

By inoculation of human blood agar with the fresh filtrate of fresh human typhus urine we have been able to obtain cultures of the small cocco-bacillus in which the small size is retained. On subculture, however, it tends to become mixed with larger forms.

Injection of the first culture on human blood agar into two bonnet monkeys gave rise to a high continued fever after the lapse of a definite incubation period of a few days.

We then returned once more to examination of the fresh blood of typhus patients, and found that after dissolving the centrifuged red cells in bacterium-free distilled water we could sometimes demonstrate the small cocco-bacillus. And again, as in the case of urine, it rapidly disappeared when the citrated blood was incubated, or when artificial media were inoculated with it, its place being again taken by the larger cocco-bacillary forms. We also found that if it is desired to produce in monkeys a continued fever by injection of typhus blood this must be injected very soon after collection. After about 48 hours or less the blood appears to become inert as an infective material, as in the case of urine and cerebro-spinal fluid, though it may, and in our cases generally was, soon crowded with large cocci and bacilli having the same cultural characteristics as those described. The duration of the infectivity of typhus blood after its collection does not appear to have been studied, but accurate observation on this point is clearly of importance in attempting to determine the ætiological relationship of the cocco-bacillus to the disease, as well as the problem of its mutation into the large non-pathogenic forms. The reason why the small cocco-bacillus has not previously been noted to exist in a free state in the blood appears to be that its minute size makes recognition difficult or impossible when embedded in the highly albuminous matrix of a blood film. If, on the other hand, it is looked for in a saline medium such as is urine, or in a distilled water preparation from the blood, or in the cerebrospinal fluid, in which we also found it in large numbers when perfectly fresh, it can be easily recognised.

In cerebrospinal fluid, as in urine and blood, it soon disappeared after incubation, and in its place were seen great numbers of the large forms, which also proved on injection into bonnet monkeys to be inert.

From fresh human typhus blood, and from fresh cerebrospinal fluid, we have been able to cultivate the small cocco-bacillus on human blood agar, as in the case of fresh urine already referred to. On injection of the blood and cerebrospinal cultures on blood agar the procedure has in several bonnet monkeys been followed by high continued fever after a well marked latent period.

These monkeys will presently be tested for immunity by injection of fresh typhus blood. It should, however, not be forgotten that the monkey appears often to be naturally immune to injection of human typhus blood, even when collected at suitable times, both in our experience and that of many other observers. Too much reliance, therefore, cannot be placed on immunity experiments of this nature.

This briefly is an outline of some of our experiments on the ætiology of typhus fever, experiments which were the direct outcome of a study of the hæmic infections of urine.

We are fully aware that the pleomorphism of the filter-passing infective cocco-bacillus referred to, as well as its apparent mutation into larger cocco-bacillary forms which are non-infective, is not an easy matter to prove. And, indeed, the obvious criticism that we are dealing with contaminations —in the broad sense of the word—is easier to make than to refute. If, however, this mutation be eventually proved, and we make no dogmatic statements as to this, or as to the ætiological relationship of the organism to typhus fever, it will be a satisfaction to know that much of the previous work on the subject can be brought into line.

Whatever the verdict of the future in these respects, we venture to think, however, that a study of the hæmic infections of urine, quite apart from the numerous carrier problems it suggests, with which we have no time to deal here, is one that deserves a fuller attention on the part of clinicians and experimentalists than it at present receives, both in diseases in which the causal organism is known, as well as in those in which it is not.

Table of 20 Cases of Lobar Pneumonia Showing Results of Study of Hæmic Infection of the Urine.

Case.	Temp. F.	Albumen.	Turbidity.	Reaction.	Organism.
1	99.6	no	no	alkaline	Pneumococcus Pneumobacillus
2	98.6	no	yes	acid	Pneumococcus Pneumobacillus
3	98.0	no	no	acid	Pneumococcus
4	103.6	trace	yes	acid	Pneumococcus B. Influenzæ
5	98.4	no	no	acid	Pneumococcus Pneumobacillus
6	99.6	no	no	alkaline	Pneumobacillus
7	100.4	trace	yes	acid	Pneumococcus
8	99.0	no	yes	alkaline	B. Influenzæ
9	101.4	yes	yes	acid	Pneumococcus
10	102.0	yes	yes	acid	Pneumobacillus
11	99.0	yes	yes	acid	Pneumococcus Pneumobacillus
12	98.4	yes	yes	acid	Pneumococcus Pneumobacillus
13	103.0	yes	yes	alkaline	Pneumobacillus
14	101.0	yes	no	acid	Pneumococcus
15	101.0	yes	yes	acid	Pneumococcus
16	100.0	yes	no	acid	Pneumococcus
17	102.0	yes	yes	acid	a Streptococcus
18	99.0	yes	yes	acid	Pneumococcus Pneumobacillus
19	99.4	no	yes	acid	Pneumococcus
20	103.8	no	no	acid	Pneumococcus

We are greatly indebted to Dr. F. Keates, Superintendent of the Camberwell Infirmary, for permission to study these cases, and for the generous assistance placed at our disposal.

Table of 20 Cases of Typhus Fever Showing Results of Study (of Hæmic Infection) of the Fresh Urine.

Case.	Temp. F.	Albumen.	Turbidity.	Reaction.	Organism.
1	103.4	no	yes	acid	Small cocco bacillus Large bacilli & cocci
2	103.8	trace	yes	alk.	Small cocco-bacillus Large bacilli & cocci
3	98.6	no	yes	alk.	Small cocco-bacillus Large bacilli & cocci
4	100.2	no	yes	alk.	Small cocco-bacillus Large cocci & bacilli
5	98.0	no	no	acid	Small cocco-bacillus Large dividing bacilli
6	103.6	trace	yes	alk.	Small cocco-bacillus Large bacilli
7	104.0	yes	yes	acid	Small cocco-bacillus Large bacilli
8	103.8	no	yes	alk.	Small cocco-bacillus Medium & large bacilli
9	102.6	no	yes	alk.	Small cocco-bacillus Large dividing bacilli
10	99.0	no	yes	acid	Small cocco-bacillus Large dividing bacilli
11*	98.0	no	yes	acid	Small cocco-bacillus Large bacilli
12†	98.0	no	no	acid	No cocco-bacillus Large dividing bacilli
13	98.6	no	yes	acid	Small dividing bacilli Medium & large bacilli
14	100.2	trace	yes	alk.	Small cocco-bacillus Large bacilli
15	103.4	no	yes	alk.	Small cocco-bacillus Large bacilli
16	103.8	no	yes	—	Small cocco-bacillus Large bacilli
17	103.8	trace	yes	acid	Small cocco-bacillus Small Gram-bacilli
18	102.0	no	yes	acid	Small cocco-bacillus Large diplococci
19	102.8	no	yes	acid	Small cocco-bacillus Large dividing bacilli
20	101.8	no	yes	acid	Small cocco-bacillus Large dividing bacilli

* Just after crisis. † Some days after crisis.

Note.—*A Clinical Lecture by a well-known teacher appears in each number of this Journal. The lecture for next week will be by H. L. McKisack, M.D., M.R.C.P.Lond., Physician to the Royal Victoria Hospital, Belfast. Subject: "A Case of Pernicious Anæmia."*

ORIGINAL PAPERS.

SOME CASES OF FEMORAL HERNIA AND THE INGUINAL OPERATION FOR THIS CONDITION.

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Femoral hernia is a subject presenting many points of interest to the surgeon, and the following cases illustrate some of the questions :—

Two years ago (*a*) a girl æt. 25, was admitted to my wards with double inguinal and double femoral hernia. She had a general weakness of her abdominal muscles, due to anæmia, and her work as a housemaid, and in addition to the definite herniæ there was a definite bulging in both thighs on coughing, beneath the outer half of Poupart's ligament. After opening the inguinal canal it occurred to me that a femoral hernia had been approached from this aspect, and with a view to saving time and incisions I retracted the margins of the wound and found it easy to excise both femoral and inguinal sacs and to suture both rings from the one incision on each side. Though the route was adopted primarily for the purpose of shortening the necessary duration of anæsthesia, the free exposure of the parts (in comparison with the femoral route), the ease with which the neck of the sac could be closed at a high level, and the free access to the femoral ring and complete closure it rendered possible, were so striking that I have since utilised this route for practically all fermoral herniæ. The next case I met with was a strangulated femoral hernia in a man, æt. 62, and in this case I avoided the inguinal route, as I was afraid of the loss of time required for closure of the inguinal canal. (His hernia is quite firm after a lapse of twenty months, though his work is fairly heavy.)

Before giving a detailed description of the operation it will be of advantage to consider the prognosis of femoral hernia and the principles of operations for herniæ in general. All surgeons

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(*a*) *Liverpool Medico-Chirurgical Journal*, July, 1914.

are agreed that in an operation for hernia it is necessary to obliterate the sac at a high level; this is attained in inguinal hernia by various methods—in small children forcible traction on the sac and ligature as high as possible as a rule suffices without opening the inguinal canal; in Bassini's operation in adults high access to the neck of the sac is attained by opening the inguinal canal; in Kocher's method high obliteration is obtained by inversion and transposition of the sac.

Most surgeons, in addition, consider it right to attempt to close the weak place in the abdominal wall by the suture of muscles and fasciæ, and this is especially necessary in the abnormal rings caused by large herniæ, and in patients with weak abdominal muscles, which usually means the combination of wide rings and prolapse of viscera on to the weak parts.

Now with the usual femoral incision for femoral hernia, especially in obese patients, there is difficulty in obtaining high exposure of the neck of the sac for ligature, and even greater difficulty in gaining that clear exposure of the fasciæ about the femoral canal, desirable for satisfactory closure, as is shown by the multiplicity of operations that have been devised. The inguinal incision gives a far better exposure in both cases.

Before utilising a new operation it is, however, necessary to consider how the results of the old operations have stood the test of time. As a rule, one would have said that the multiple operations described for femoral hernia were a sign of unsatisfactory after-results, but there is a very wide divergence of opinion.

On the one hand, Murray (1) recorded thirteen cases in females, twelve traced; five in males, four traced, with no recurrences; and he states that since then he has traced many more cases and found no relapse at all. Murphy (2) and Ochsner, (3) also using simple ligature of the sac and removal of the fat from the ring without suture of any fascial structures, state that recurrence is unknown (thirty cases traced), and others (4) give similar results.

On the contrary, I understand that recurrent femoral hernias are a fairly common condition at the London Truss Society, and the following large series confirm this view:—

Bresset (5) collected 232 cases without closure of the ring, 29 per cent. recurrences; 163 cases with closure of the ring, 8.6 per cent. recurrences.

Pott (6) collected 422 cases; 36.7 per cent. of recurrences when the ring was not sutured; 28.4 per cent. of recurrences when the ring was sutured.

The inguinal route was first described by Lotheissen (1898), and again by Battle (1901), and an excellent account of their *technique* is given in Jacobson's *Operative Surgery* (7). Moschowitz (9) described another method in 1907, and there is a recent paper by Seelig and Tuholske (8) laying especial stress on the anatomy of the parts.

The procedure is that for inguinal hernia until the inguinal canal is opened; the conjoint tendon is retracted upwards (and the cord drawn up in the male), and a little blunt dissection along the inner part of Poupart's ligament shows Gimbernat's ligament and enables the margins of the femoral ring and the neck of the sac to be clearly defined. The transversalis fascia is seen closing the internal inguinal ring, and (except in the smaller hernia) it is necessary to divide this fascia parallel to Poupart's ligament before proceeding further. In small herniæ the whole sac can often be drawn out of the ring and converted into an inguinal hernia; but in most cases the peritoneal cavity is opened on the abdominal side of the neck of the sac, the contents are reduced, and the sac is then drawn up and cut away, the opening being sutured well on the peritoneal side of the neck, which is usually broad; the transversalis fascia is also resutured.

Having dealt with these structures, the femoral ring is closed: Gimbernat's ligament and Poupart's ligament are identified, as is also Cooper's pubic ligament, a strong fascial band along the ilio-pectineal line, formed of reflected fibres from Gimbernat's and Colles' ligaments, from the conjoint tendon, the linea alba, and in some measure from all the tendinous structures in the neighbourhood; the femoral vein being protected, three or four strong sutures are passed through Cooper's ligament and Poupart's ligament, the inner sutures taking a grip of Gimbernat's ligament in addition, and on tying these the femoral ring is firmly closed. The conjoint tendon is then sutured to Poupart's ligament, as in Bassini's operation for inguinal hernia, and the external oblique aponeurosis resutured. In many cases it will be found more convenient to pick up with the inner deep sutures, the conjoint tendon, Cooper's ligament and Poupart's ligament, so combining the methods of Lotheissen and Moschowitz.

In this operation difficulties may arise in dealing with the sac—in one of my cases the omentum was so adherent to the sac and the apex of the sac so adherent in the groin, that I ligatured the omentum and sac on the abdominal side, and then cut away as much as possible of the rest, leaving the apex still adherent in Scarpa's triangle. In two cases of strangulated hernia it was necessary to nick Gimbernat's ligament, and this can be done readily with the parts in full view, so that an abnormal obturator artery could be readily dealt with. In two cases the bladder was on the sac, and in one it was separated for so much as three inches in order to ligature the sac high up; this case certainly might have been distinctly awkward if approached from below Poupart, but in my opinion both these cases showed the advantage of the route for high ligature of the sac.

In one case of strangulation the lower margin of the skin incision was retracted downwards and the sac opened in the groin and the fluid in it cleared out before reduction was performed; in this case resection was considered, but was not found necessary—should it have been required it could have been readily performed without any additional incision.

In very stout patients it is necessary to take a specially deep grip of the pubic ligament with the hernia needle, as otherwise the sutures may cut through.

I have now utilised this method in nine cases, including four of strangulated hernia; in only three has a sufficiently long time elapsed to consider the cure as established.

The first of these (double inguinal and femoral) was quite sound two years after operation, and the bulging on coughing over the outer part of the thigh is less marked, though she has had a child in the interval; a second, a strangulated hernia, æt. 61, is quite firm eighteen months after operation, says she can go long walks and bathe without trouble, and indeed is thankful that the onset of strangulation made an operation necessary and relieved her of her truss; the third, a woman, æt. 29, is quite sound after twenty months. Two of the cases, both over seventy years of age, and with symptoms of obstruction of five and six days' duration, died of cardiac failure some hours after operation—the relatives of one case had been some time previously warned by a physician that the condition of her heart was so bad that sudden death might occur at any time. Another lady, æt. 68, with a strangulated hernia five inches across and the skin over it red and œdematous, made an uneventful recovery till the time came to get up, when a series of faints made us afraid that she would never be able to leave the hospital—though there was no valvular lesion of the heart, it appeared that she had been subject to such attacks for some years.

I regret that I have not more after-results to show, but the experience of those who have utilised this method has been very satisfactory, and I can only express the opinion that the inguinal route will, in time, be the route for operations on femoral hernia—its advantages over the old method cannot fail to be apparent to all who see it used.

Case I.—Woman, æt. 28. 22.4.12. D.I.H., D.F.H. Inguinal operation; conjoint and Poupart sutured to pubic ligament. Primary union. *Cure.* Sound, 16.4.14 (one child in interval). (2 years.)

Case II.—Man, æt. 62. R.F.H., obstructed, irreducible 3 days. 27.8.12. Femoral operation; Poupart sutured to l. Pectineal fascia. Primary union. *Cure.* Sound, 14.4.14. (20 months.)

Case III.—Woman, æt. 29. R.F.H. 23.9.12. Inguinal operation; bladder on sac. Gimbernat tendon to pubic ligament, Poupart to Gimbernat tendon. Primary union. *Cure.* Sound, 16.4.14. (19 months.)

Case IV.—Woman, 73. 8.11.12. L.F.H. Five days strangulatied. Inguinal incision. Richter's hernia, small gangrenous patch at point of constriction required inversion. *Died* 5 hours later. (Mitral disease.)

Case V.—Woman, æt. 61. 29.11.12. R.F.H. Strangulated 2 days. Inguinal incision. Richter's hernia, conjoint to pubic ligament, Gimbernat and Poupart to pubic ligament. Primary union. *Cure.* Sound, 12.4.14. (19 months.)

Case VI.—Woman, æt. 50. 27.8.13. R.F.H. (9 inches by 6 inches). Many years' standing; had refused operation during attack of strangulation ten days previously. Irreducible. Double mitral and aortic disease: spinal anæsthetic. Combined route, Poupart's ligament being divided; Intestines universally adherent to each other and sac. Secondary union (an ulcer was present on the sac wall). *Cure.*

Case VII.—Woman, æt. 28. 9.10.13. L.F.H. Inguinal operation; bladder on sac. Poupart and conjoint to pubic ligament. Ether pneumonia. Primary union. *Cure.*

Case VIII.—Woman, æt. 20. R.F.H. 13.10.13. Inguinal incision; conjoint to pubic ligament and Poupart's ligament. Primary union. *Cure.*

Case IX.—Woman, æt. 72. L.F.H. Strangulated 6 days; fæcal vomiting. Inguinal incision; gangrenous line on bowel opposite Gimbernat's ligament (which required division) inverted. *Died* 5 hours after operation.

Case X.—Woman, æt. 42. L.F.H. 20.3.14. Inguinal incision; adherent apex of sac and omentum left in thigh. Poupart to pubic ligament, conjoint to Poupart. Primary union. *Cure.*

Case XI.—Woman, æt. 68. R.F.H. 15.4.14. Strangulated 2 days; hernia 5 inches by 3 inches. Inguinal incision; sac opened above Poupart and also in thigh after retracting skin. Sac contents irrigated with saline. Gimbernat's ligament freely divided from above. Intestine very congested, but viable reduced. Conjoint and Poupart sutured to pubic ligament, which is soft and fatty. Primary union. *Cure.* (Patient subject to severe fainting attacks.)

Case XII.—Man, æt. 30. R.F.H. Two weeks' history, came suddenly after a strain. Impulse entirely outside vessels below Poupart. A lacunar hernia. Semilunar incision 4 inches long, 1½ inches below Poupart. Poupart retracted. A small sac (2½ by 1½ inches) with a wide mouth, found its neck in relation to the spermatic vessels on the iliac muscle; only fat and no marked fascia found between Poupart and the fascia iliaca. Sac drawn down and ligatured. Semilunar flap of fascia lata turned up and sutured to fascia iliaca. Wound sutured. Ether pneumonia. *Cure.*

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(7) Lotheissen, Battle, *Operative Surgery*, Jacobson and Rowlands.
(8) Seelig and Tuholske, *Surgery, Glynæcology, and Obstetrics*, 1914, xviii. p. 55.
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BACTERIAL MUTATIONS: SOME RECENT OBSERVATIONS AND SUGGESTIONS AS TO THEIR EFFECT ON CURRENT MEDICAL THEORIES. (*a*)

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It is generally accepted that some micro-organism may be regarded as the causal agent of each of the so-called infective diseases; and further, it has been almost an axiom in medicine that every organism producing a disease must of necessity have had a progenitor with similar characters. That is to say, there is a continuity of the species; and thus, when any case of an infective disease occurs we postulate some previous case as mediate or immediate cause. Elsewhere, I have discussed the question of the meaning which should be attached to the terms infectious and infective from the practical point of view, and it is unnecessary here to touch on this aspect of the problem.

Let me formulate a concrete proposition which may still represent the views of many medical men, and will in any case serve as the text for the discussion in this paper:—That the micro-organisms of specific diseases do not arise *de novo*, and whenever such organisms are met with, they are the descendants of organisms with similar characters, some of their ancestors at least have given rise to a similar disease.

(*a*) Read before the Public Health Section of the South African Medical Congress, August, 1914.

In support of this hypothesis the following facts might be urged :—

Firstly, that in both the animal and vegetable kingdoms any one species is not found to vary in character from generation to generation except within narrow limits, and we may, therefore, by analogy anticipate that the same stability of character will be true for micro-organisms. That the acquirement or loss of pathogenic properties is a large variation. Recent observations, first brought into prominence by the work of De Vries, have shown that mutations are not unknown even amongst highly organised structures, and we have learnt to recognise that a new character may appear suddenly, and that subsequent generations may continue to bear this character. It appears to me reasonable to assume that the more lowly organised a plant or animal may be, the more probable such mutations would be ; but whether or not such a hypothesis be correct, it will, I think, be admitted that variations are more probable among asexual types than where both male and female gametes are concerned in the production of the zygote. Unless we assume a special creation for each type of organism, changes in character must clearly have occurred at some time or other, in which case the phenomenon is not a new one. Arguments as to whether the egg or the hen appeared first are doubtless futile ; nor have we the right to assume that because one type of organism arose from some allied type the process will necessarily be repeated, unless we know what the antecedent conditions were, and whether they are being, or are capable of being, repeated. At the same time such a possibility should not be excluded, because, unless the supposition of special creation be correct, we are postulating no new principle nor anything intrinsically impossible.

Secondly, it may be urged that practical experience supports the suggestion that the types of micro-organisms are stable. Doubtless this is to a large extent true. One case of scarlet fever will give rise to a second ; the carrier of the typhoid organism will spread the same disease to others ; and so on. Having observed these and similar phenomena to be true in many diseases, or at least to be a common occurrence in many diseases, it has been assumed to be an invariable rule, and to apply to all diseases due to micro-organisms. This assumption having been accepted, apparent exceptions are simply dismissed as cases in which sufficient information is not available, and the literature has been filled with records of the examples which supported the hypothesis. It is hardly necessary to remind the members of this section of the many cases of diphtheria and enteric fever which arise in the most unexpected and improbable places, where no carrier or previous case would have been postulated unless it had been assumed that such a case was a necessity. How, for instance, are we to explain rationally the annual appearance at definite times of the numerous sporadic cases of typhoid fever which usually usher in the enteric season ? Are we to assume that no carriers were about during the foregoing period, or that they have certain "off seasons" in which they cannot spread the disease ? Moreover, local outbreaks due to carriers may occur at any season, and the number of potential carriers which would be required to explain adequately the seasonal outbreaks would be quite out of keeping with anything observed at other times. Or, again, are we to assume that at a certain season of the year typhoid organisms are latent in soil or water, and become active at others ? This suggestion loses much of its attractiveness when we compare the seasonal epidemiology of enteric fever in the different countries of the world.

On what, then, do we base our ideas of uniformity of type. On observations in regard to similarity of symptoms combined with uniformity of cultural and morphological characters ? Much recent work shows that in respect to many micro-organisms neither the cultural, morphological, nor serological, characters are necessarily stable ; and if, therefore, the assumption of uniformity of type is based on such evidence it will be well to reconsider our creed.

Clinically we have ample evidence of changes within a species, changes, that is, of character if not of kind. Animal experiments have demonstrated how virulence can be reduced to the vanishing point or greatly enhanced. Study of the history of epidemics shows how variable is the virulence from time to time. The decrease in virulence with length of time since the commencement of the outbreak of an epidemic is frequently noticed ; but the explanation often advanced, namely, that this is due to the attack of the more susceptible in the early stages, does not appear to me entirely satisfactory, even if the reverse phenomenon were unknown.

Let us briefly review some of the recent observations on changes or mutations of bacteria. The term mutation has been freely used in connection with these changes. If we merely use the term to imply an alteration in a character no objection to the word can be raised, but if we use it in its more limited biological sense implying a sudden change in, or acquirement of, a character which shall remain unaltered for all the progeny of the organism, then possibly the term may be correct for special cases, but incorrect in general. If altered environment plays the part of gradually eliminating those organisms most unfit for the new condition, until a race with altered characters is established, the biological use of the word mutation for such a phenomenon is misleading. It is no doubt true that changes in character often arise with apparent suddenness in laboratory experiments, but it must not be forgotten that tens of generations can be produced in a few hours, and what appears to us a short time may represent many generations of bacteria. It is probably doubtful whether, at present, there is sufficient evidence available to enable us to classify properly the biological processes concerned in the production of the observed changes.

One of the groups of organisms on which much work in this connection has been done is the colon-typhoid group. Medical literature contains numerous accounts of alterations in character, especially in regard to the sugar fermentations, of members of this group. For instance, it has for long been known that an organism which, when first isolated, gave all the fermentative reactions of a para-typhoid bacillus, may by cultivation on suitable media lose its characteristic properties, and become indistinguishable from a colon bacillus. Further than this, both Revis and Penfold have described cases in which a colon bacillus has, after cultivation on special media, given rise to an organism which apparently does not belong to the colon group; in Revis' own words, "which is neither physiologically, morphologically, nor culturally a colon bacillus." A good account of the mutations of bacteria in this group, the colon-typhoid, is given by Clifford Dobell in an article entitled "Mutations in Bacteria," appearing in the *Journal of Genetics*, Vol. II., No. 4. W. J. Penfold, who has done a great deal of work on bacterial mutations, writing in the *Journal of Hygiene*, Vol. XI., No. 4, says: "I feel very little doubt about the variation process described by Revis, as it bears a strong resemblance to the one described in the previous communication I made on this subject, and in that case the identity was determined by serum tests as well as by standard cultural tests. Moreover, other organisms varied similarly in the same environment."

Dr. Penfold finds that the mutations among members of the colon group are remarkably constant under given conditions, and in this respect they differ from the observations made when dealing with some of the other groups. To quote his own words: "It will be noticed that the above examples of varying degrees of specificity of variation process are taken from the intestinal group of organisms. They are, therefore, not at variance with, though very distinct from, the haphazard variations that have been described in the case of the Streptococci."

The group of organisms just discussed are a class we are accustomed to regard as pathogenic, or potentially pathogenic, and although certain forms are associated with specific diseases, it may be held that the so-called mutations are possibly merely small variations, which do not constitute a fundamental change of character such as would permit us to classify the new organism as a different species. Or possibly a believer in the theory of the inheritance of acquired characteristics might be satisfied to assume that the old organism had but acquired a new character, and there was no real alteration in type. Neither of these views appears to me satisfactory, but then if we accept the latter we shall have to admit that a non-pathogenic organism may acquire pathogenic properties, and thus to all intents and purposes become, from the medical point of view, a new species.

Turning now to another group of organisms, the experiments of Theile and Embleton are of exceptional interest and importance. They have shown that organisms which are non-pathogenic may, if the host be previously sensitised, become pathogenic, not alone to the sensitised host, but thereafter to normal animals. Their experiments were conducted with the bacillus mycoides (a soil organism, superficially resembling the anthrax bacillus, but ordinarily incapable of growth at body temperature, and possessing flagella) and two members of the acid-fast group, the smegma and the timothy grass bacillus. After having sensitised a guinea-pig to the bacillus mycoides by an inoculation with 20 milligrams dry weight of these organisms, an intra-peritoneal inoculation of an agar slope of mycoides grown at 37° Centigrade produced death in sixty hours. They state, "The *post-mortem* appearances were thus indistinguishable from those of anthrax." Similar experiments were carried out with smegma and timothy grass bacilli, and to quote again their own words: "The *post-mortem* appearances were thus indistinguishable from those due to an intraperitoneal injection of tubercle bacilli." They further conclude: "Thus an organism by passage may become so altered that it is able to infect and multiply in an animal in which there is no specific ferment. The mycoides could only become pathogenic in the first instance on inoculation into a sensitised animal. . . . After passage this organism is capable of producing disease in a normal animal. . . . The passed smegma and phlei are similar."

In these experiments we have examples of non-pathogenic organisms, or possible we should say, organisms previously supposed to be non-pathogenic, which, under experimental conditions, give rise to a race of organisms indistinguishable in the pathogenic lesions which they produce from the anthrax bacillus on the one hand, and the tubercle bacillus on the other. But the reverse of the proposition is also apparently true. Dr. Hermann Dostal claims to have produced from the tubercle bacillus by laboratory treatment an organism which is non-acid-fast and non-pathogenic. Mme. Victor Henri, working in Dr. Roux's laboratory, has transformed the anthrax bacillus into a coccus under the influence of ultra-violet rays. The author of a note in the June, 1914, number of the *Journal of Tropical Medicine and Hygiene* writes: "We are getting accustomed to the idea that the apparent specific differences of germs are but stages in development, starting from some common source, and that soon the present-day divisions founded upon shapes, etc., will become obsolete as a basis of classification."

(To be concluded in our next.)

ANTIMONY IN SYPHILIS. (*a*)

By JAS. C. McWALTER, M.D., LL.D., F.R.F.P. and S.

The true antisyphilitic drugs, according to Neisser, are those which have the power of killing spirochætes. These are mercury, arsenical compounds, including salvarsan, and antimony. Concerning antimony, Neisser does not think there is any evidence yet of its efficacy in human syphilis, but he states it has a destructive action on the spirillosis of animals,

Neisser's view of the ideal drug is one which would combine arsenic, as in salvarsan, with mercury, and he considers it would be made still more powerful by the addition of antimony.

The whole world is now drenched with salvarsan given mostly in heroic doses, and a reaction has set in. Instead of the "Therapia magna sterilisans" of Ehrlich, Neisser advocates a combination of drugs, in moderate doses, continued for over a year. He states that while a non-toxic dose of each drug may be given, the combined effect is powerful. 2. Some spirochætes are affected more by mercury, some by arsenic, some are probably more affected by antimony. 3. Mercury and arsenic destroy spirochætes in different ways. More modern views seem to suggest that the treatment of syphilis must consist, not only in killing the treponemes, but in rendering the blood unfavourable to their reproductive functions, and resistant to the life cycle of the infective organisms. The seed, the

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(*a*) Abstract of paper read before the British Medical Association, Aberdeen, August, 1914.

soil, the cycle, have all to be modified by therapeutic agents, and to suppose that any one drug could have such varied and opposing qualities is surely fantastic.

A substance called Antilutin has recently been introduced by Tsuzuki. It is a compound of antimony oxide with potassium tartrate and ammonium, and it is administered hypodermically in solution, about three grains being given in divided doses in four days.

I have used antimony in the treatment of syphilis for fifteen years, and it appears to be a drug of very considerable value for both the nervous and epithelial tissues.

It is worth noting that although Neisser states that there is no evidence whether antimony cures syphilis in the human subject, Plummer's pill, which contains sulphide of antimony, has been in the Pharmacopœias for ninety years. It was claimed then that it had a specific action on skin diseases of a syphilitic type. My experience goes to show that, whilst the curative effects of antimony on syphilitic lesions are very much like those of arsenic, it is distinctly milder in character, and seldom or never followed by optic neuritis or by the fatal effects attributed to arsenical compounds. It seems proper to analyse the therapeutics of each one of what Neisser classifies as anti-syphilitics in view of a very recent conclusion, after a careful analysis of all the fatalities by salvarsan, that "death by salvarsan is nothing less than death from acute paralysis of the circulation by arsenic. Theories which attribute catastrophes to impurities of the solution, alcoholism in the patient, injudicious selection of cases, or technical errors in administration, must be abandoned. Both salvarsan and arsenic are vascular poisons, acting directly on the bloodvessel wall, the blood itself, and the vaso-constrictor centre, producing a circulatory stasis or local thrombosis and their associated symptoms." In Ireland, where famine or relapsing fever, one of the earliest diseases proved to be due to a spirillum, was unhappily frequent, antimony appears to have been given both in that disease and in typhus.

I have nothing miraculous to report about the effects of antimony in syphilis, except the fact that I have given it for many years, and absolutely without fatalities. I do not think it will cure syphilis if given alone, but it certainly assists the cure if mercury be also given. It appears to be particularly useful in the dermatological manifestations of the disease, and the cases which I treated with it were notably free from nervous complications. I think the red sulphide—or antimonium sulphuratum—is the most convenient salt to employ. The dose should not exceed from one or two grains, but must be continued daily for two or three months—with occasional intermissions of a few days. It is, I think, a peculiarly useful drug in the fatal broncho-pneumonia which carries off so many infants, the subjects of inherited syphilis. Antimony was a panacea for almost every disorder in the seventeenth and eighteenth centuries. It cannot be denied that it had frequent good effects in various types of mania, and it seems safe to assume that many of those were of a syphilitic genesis, and it is fair to suppose that any beneficial effects were due to the spirillicidal properties of the antimony.

OPERATING THEATRES.

PUTNEY HOSPITAL.

Malformation and Hypertrophy of the Right Costal Cartilage, Causing Swelling and Pain—Operation—Relief.—Mr. Sampson Handley operated on a young married woman, æt. about 30, who had been admitted to the Putney Hospital for severe localised pain in the region of the fourth right costal cartilage, where a swelling could be felt. The pain was so severe that it kept her awake at night. The lump had been noticed for a month. There was definite tenderness over the right fourth costal cartilage, which was much broader than the left one and more prominent, the prominence extending to the adjoining end of the fourth rib. The X-ray examination was negative. It was thought that the swelling was tuberculous, with reservations in favour of sarcoma or gumma.

He cut down on the swelling by an incision on the line of the fourth costal cartilage and found a curious condition. The cartilage appeared quite normal in colour and condition. It was much broader than normal and showed partial dichotomy; that is to say, a small independent buttress left its upper margin about the mid point of the cartilage and ran obliquely upwards and inwards to articulate separately with the sternum near the third costo-sternal articulation. A small triangular interval was present below this buttress, bounded by the buttress, by the edge of the sternum, and by the upper edge of the fourth cartilage. In addition to being abnormally broad, the cartilage and adjoining part of the fourth rib were unduly prominent. It was thought that this depended upon an abnormal increase in the length of the costal cartilage, and about half an inch of the cartilage was carefully resected. The interval thus formed immediately closed up, the prominence of the rib and cartilage disappeared, and no swelling could any longer be felt. The buttress also was removed and the incision was sewn up.

Mr. Handley said that this case prior to operation was thought to be one of tubercle of the ribs. The case was unique in his experience, nor was he aware of any similar one in surgical literature. The deformity of the costal cartilage must have been of congenital origin, but the overgrowth of the cartilage had evidently continued during adult life, and had only recently been sufficiently marked to cause pain. The pain was apparently due to abnormal stresses in the thoracic wall set up by the elongation of the arch formed by the fourth rib and its cartilage.

The patient made a good recovery and her pain was relieved.

TRANSACTIONS OF SOCIETIES.

THE NEW LONDON DERMATOLOGICAL SOCIETY.

Meeting held Thursday, October 8th, 1814.

Dr. G. Norman Meachen in the Chair.

The following cases were exhibited:—

Dr. Meachen showed (1) a case of alopecia areata with arsenical keratosis in a middle-aged man, who had suffered from the affection for many years on the eyebrows and scalp. He attended a skin hospital eight years ago, and received a mixture containing arsenic and strychnine, which he took, intermittently, for two years. The hair returned almost completely, but during the last six months it began to fall out again. The keratosis was chiefly seen on the hypothenar eminences, though the same condition was seen in the upper border of the soles of the feet. There was a small patch of pigmentation upon the back. The exhibitor considered that the condition of the palms was due to arsenic.

Dr. C. G. Mack said that the case interested those of them who were general practitioners most, because of its relation to the time occupied in effecting a cure of the alopecia areata. If a case of alopecia were not cured within three months, it often happened that the practitioner in charge was regarded with distrust. It had always been a puzzle as to what was the best form of treatment to adopt in such cases. The treatment of chronic alopecia had not advanced in the same way as the diagnosis had done, and so far as treatment was concerned, they were very much in the same position as they had occupied for a long time past.

Mr. T. P. Beddoes said that two years of arsenical treatment was ample in which to give keratosis. In this instance, not only was there keratosis but also pigmentation, although not the characteristic punctate, round, hard follicles. There was distinct pigmentation localised in one spot, on the left flank.

Dr. G. W. Sequeira pointed out that keratosis was not always accompanied with other manifestations of arsenical toxæmia. One could get keratosis without the so-called arsenical symptoms. The practical point in this case was to drop the arsenic. If he (the speaker) had keratosis in his palms and was taking arsenic, he would certainly drop the arsenic, because he knew what was likely to follow if the drug were persisted in.

Mr. Dennis Vinrace said that he did not think the case was really made out to their satisfaction as one of arsenical poisoning. Obviously, the feeble circulation and the changes in the skin might be due to vasomotor action. Other signs of arsenical poisoning were absent. There was no irritation of the eyes, no pain in the stomach, and nothing very definite at any point which indicated arsenical poisoning. The symptoms which had been brought to their attention were equivocal. He noted that the patient's work was such that he had to handle many different kinds of materials which might possibly produce this condition of his hands.

Dr. W. J. Midelton said that Dr. Mack had raised one or two important points, more particularly pointing out that they, as a profession, had been looking for quick cures, and that the general public clamoured for such cures. As a profession they ought to impress it on the general public that there were certain things which could not be cured in a hurry. He would like to know how Dr. Mack applied the blistering in his cases of alopecia areata. Did he use blistering fluid He (the speaker) had treated cases of alopecia areata by applying an oil consisting of cantharides, croton oil, and almond oil in varying proportions.

Dr. Mack, in reply to Dr. Midelton's question, said that he awaited the patient's convenience as to blistering; fresh applications depended upon the time taken by previous blisters to heal up.

Dr. T. Galbraith said that he had never seen any benefit from the use of blistering in alopecia areata. It was true that the hair came back after the blistering, but in cases in which this happened the hair would probably have come back even if the blister had not been applied, and in the persistent cases blistering did not do any good whatever. In some of these cases Dr. Sibley had obtained good results by means of ionisation with perchloride of mercury and chloride or sulphate of zinc.

Dr. Meachen, in replying upon the discussion of this case, said that there were two quite distinct points of interest connected with it. In the first place, was the keratosis on the palms arsenical? Arsenic had cumulative effects; even though the drug were stopped the effect went on, and the brunt of it might fall on the skin only. As to blistering, etc., whatever drug was employed, persistence was the keynote of success. If one particular remedy did not answer a change must be made to another. He thought it would be unwise to pin one's faith absolutely to one remedy.

(2) A woman, æt. 71, with a scarring lesion on the centre of the nose, and a small cutaneous horn of the upper lip. The condition was said to be of six months' duration. A question which occurred to him was whether the nose lesion might be of the nature of a rodent ulcer. There was an old scar in the palate and a history of a nasal discharge, but no other evidence of syphilis was obtained.

Dr. T. P. Beddoes urged that the patient should first be given iodide, and then have a Wassermann test performed. Somehow it happened that there were cases of Wassermann which were positive and did not respond to iodide, and cases in which the Wassermann was negative and which did respond to iodide. One should not be entirely guided by the Wassermann, but should safeguard the patient by iodide. If anyone wished to make an experiment, syrup of hydriodic acid was a very good remedy of American introduction now official in the new Pharmacopœia. One might see how that acted. It had been suggested that the old lady was not truthful in denying all knowledge of the trouble on the palate, but there was some ground for believing that she attributed the former trouble to the nose and not to the palate.

(3) A case of

LEUCODERMIA WITH CANITIES

in a girl, æt. 12, with many patches of leucodermia on the body, but the most obvious thing was the band-like form of leucodermia on the forehead, extending right round by the ears and into the nape of the neck. The girl had also quite a number of grey hairs coming. The duration of the case was six months. There was no chorea; the child had not been subject to bilious attacks, and the vision was normal.

Mr. Dennis Vinrace said that one got cases of band alopecia which seemed to simulate this in distribution to a certain extent. In this case there was also the canities to be considered. He would like to say that he had seen the converse of this taking place recently. The patient, who was elderly, had canities naturally, and also alopecia, for which treatment was given by means of liquor potassæ. In the places where the hair had been renewed, the patient had, strange to say, developed dark brown hair. He had never seen such a phenomenon before.

Mr. T. P. Beddoes said that in this case not only was there leucodermia in various parts, but there was band leucodermia around the forehead. No explanation of this was forthcoming. There was an extremely good paper by H. S. Stannus in *Bio-metrika*, October, 1913, on the question of leucodermia to which reference might be made. The whole question was extremely interesting, and they were always pleased to see a case. The development of dark hair in the case cited by Mr. Vinrace might have been due to the staining with liquor potassæ. Resorcin gave a dirty colour, but liquor potassæ a shiny brown, very much resembling, but a darker tint than peroxide.

Dr. Mack referred to a case which he had shown at one of the first meetings of the Society. It was brought forward as a case of Addison's disease, but the opinion of the members was that there was melanodermia. He watched that case steadily for some three years, and the whole of the skin under suprarenal extract had cleared up, but the patient now had developed these white hairs. Her eyelashes also were becoming white. She was still subject to the attacks of violent headache, sickness, and diarrhœa with rapid pulse. He put it down to disease of the suprarenal bodies. The white hair had developed since she had been off the thyroid extract. Her skin was generally normal, save that there were faint traces of slight pigmentation in the back.

Dr. Meachen replied that the relationship of canities to leucodermia and to alopecia was interesting. A previous speaker had referred to the growth of the canities *after* the alopecia, and to the fact that the converse might happen. In the case of a canities actively developing, fresh grey hairs came every day. The band-like streak in the case he had shown was permanent, but it differed from other cases of canities which had been brought forward in that it commenced at the temples and ran backwards. The case certainly bore a superficial resemblance to Dr. Mack's. The child had had a bilious attack, apparently not particularly connected with this condition, but there had been no attacks of asthenia.

Dr. H. C. Samuel showed (1) a case of

PARAPSORIASIS OF BROCQ

which had been exhibited at a previous meeting of the Society, but there had now occurred some fresh lesions which demonstrated the condition in its simple state. When the patient came before them last time, the effect of recent treatment with the Kromayer lamp had rather masked the appearance. The case differed from the cases ordinarily described owing to the subjective sensation of itching, which was not a feature of this variety of parapsoriasis as described by Brocq. One section had been taken, and was shown at the Dermatological Section of the Royal Society of Medicine. Very little was to be made out at all except a slight proliferation of the lining of the artery. There was nothing at all characteristic, and that, indeed, was the feature of parapsoriasis, that there was nothing very characteristic about the section.

Dr. Meachen said that parapsoriasis was a rare disease, and they seldom had the opportunity of seeing it. The case brought before them was quite characteristic of the parapsoriasis as described by Brocq. The whole subject was discussed at the June meeting of the Society, and a full account of it would be found in the transactions.

(2) A case for diagnosis.

The patient was a young woman who had a furuncular-looking lesion on the outer side of the right thigh, and to all appearance also an enlargement in the groin. He wished to know whether members thought it a staphylococcic manifestation, or whether there was any alternate suggestion. The lesion had been there for six months. It exuded a little serum from the surface, and a smear of some of this serum had been made, and was being examined for spirochætes.

Mr. Vinrace asked whether anything had been done to the lesion of a traumatic nature. It looked as if it had been incised or cut in some way. It was quite possible that it was a syphilitic lesion. There were cases on record in which secondaries had not shown themselves within six months.

Mr. T. P. Beddoes said that there seemed to be no induration, and the lesion had been present for six months, which possibly might account for the disappearance of the induration. If it was a small chancre, it was the only one present, it was raised, and there was not much inflammation around it. The whole matter was one for consideration.

Dr. Meachen remarked that the case looked remarkably like a primary lesion, but they must wait until they got the result of the examination of the serum. Sporotrichosis might also be considered.

Dr. Samuel, in reply, said that nothing had happened of a traumatic nature so far as he was aware. With regard to the suggestion that it was a staphylococcic infection, it was strange that the patient should not have inoculated herself in another part. Still, such infection was a possibility. He agreed with Dr. Meachen that they could not exclude primary syphilis. The gland in the groin was certainly suggestive. The fact that there was no surrounding inflammation was a point very much in favour of a chancre. There was no pus exuded; on the surface there was just clear serum.

CORRESPONDENCE.

FROM OUR SPECIAL CORRESPONDENTS AT HOME.

SCOTLAND.

Edinburgh Lord Rectorship.

The formal election of Lord Kitchener as Lord Rector of the University took place on Saturday, the 24th inst. Principal Sir William Turner presided, and he was accompanied by Prof. Noel Felix, Antwerp. Lord Kitchener was nominated by Mr. Keith, President of the Unionist Association, who said that they had never met in an atmosphere so unique and historic. A rectorial election without rhetoric, unvilified by rotten eggs and yellow ochre, was very unusual. But the Empire was at war, and many who would have taken part in the contest were now participating in the great international drama. In proposing Lord Kitchener's name, they desired to do honour to an organiser of victory, who was at this moment the man on whose skill, courage, and sanity the whole future of the Empire depended. The nomination was carried unanimously with the greatest enthusiasm. Sir William Turner said this was the third occasion on which a Lord Rector had been chosen without opposition. The first was when Mr. Gladstone had been chosen for a second period, the second when the Marquis of Lothian was returned. He congratulated the students on having risen to the occasion at this time of great stress. They had a special responsibility resting on them in their choice of a Lord Rector, because there was no university in the British Islands which so fully represented the feelings of the Empire as theirs did. He was proud that their students were drawn from all parts of the Empire, and in electing Lord Kitchener he thought they expressed the will of the Empire as to the type of man that ought to represent them at this time. Lord Kitchener was a man of few words, but of great deeds, and the country had the fullest confidence in him. He was the right man in the right place as Secretary for War, and, exclaimed Sir William, "May God defend the right."

In the afternoon the following telegram from Lord Kitchener was received at the University Union:—"I am very grateful and feel much honoured by the unanimous election you gave to me. I can assure the University that even in the press of the work at the War Office, I shall not be unmindful of its interests.—Kitchener."

Glasgow University Lord Rectorship.

The political candidates for the Lord Rectorship having signified their willingness to withdraw, the Executive of the Liberal and Unionist Clubs have announced that M. Raymond Poincaré, President of the French Republic, has accepted their joint nomination for that office. The present circumstances constitute a unique opportunity of paying a tribute both to our ally, the French nation, and its distinguished and honoured President. A letter of invitation was sent to M. Poincaré through the French Ambassador, and the following was the reply:—"Dear Sirs,—I did not fail to forward to the President of the French Republic the letter in which you asked him to accept the title of Lord Rector of Glasgow University. Monsieur Poincaré has just answered me that he appreciates greatly the honour bestowed on him, and accepts very willingly to be elected as Lord Rector of your University.—Believe me, dear Sirs, yours faithfully, Paul Cambon."

Sick and Wounded Belgian Soldiers.

The largest consignment of sick and wounded hitherto received in Glasgow arrived at Stobhill Hospital on 17th inst. The party consisted of about 270 Belgian soldiers. These had been transferred from military hospitals in Belgium, where they had spent varying periods until the German advance necessitated their removal across the Channel. The wounded are not seriously injured. The majority of the other patients are suffering from rheumatic affections due to exposure in the trenches.

The Late Dr. John Macpherson Grant.

The late Dr. Grant, of Inverness, who died on 20th inst. from heart failure, was one of the best-known practitioners in the North of Scotland. He graduated at Edinburgh in 1905. Being a lieutenant in H.M.B. Field Ambulance, Territorials, he volunteered for active service after the outbreak of the war. However, he was asked to take up special work in the Highlands, and was busily engaged organising new ambulance corps at the time of his death. Dr. Grant was quite a young man and was exceedingly popular with all classes of the community. He leaves a widow and infant daughter.

Dalmeny House as an Hospital.

The Earl of Rosebery having placed Dalmeny House at the disposal of the War Office, eighty sick and wounded soldiers of Scottish regiments have been accommodated in it. This mansion-house affords, of course, exceedingly comfortable and pleasant quarters for the patients.

Matriculation at Glasgow University.

The number of male students who have matriculated for the winter session being 1,667, as compared with 1,891 for last winter, the large diminution due to the war is apparent. The loss, however, is not so great as might have been expected. The Officers' Training Corps is at present depleted almost to zero, but the authorities are appealing to the students to join and make themselves at least capable of home defence. As regards women students, 608 have matriculated, this being only 11 short of the number last year. The total of matriculated students is, therefore, 2,275, as against 2,510 last year.

THE LATE DR. HALDANE, STIRLINGSHIRE.

Dr. William Haldane, Viewforth, Bridge of Allan, who died on 18th inst., studied at Edinburgh and Glasgow Universities, and graduated M.B.C.M. at the latter in 1872, adding the degree of M.D. in 1876. In the same year he became F.F.P.S.G. and in 1891 F.R.C.P.Ed. He long resided and practised at Bridge of Allan, of which place, regarded as a health resort, he wrote and published an account. Dr. Haldane became Consulting Physician of Stirling Royal Infirmary and Medical Officer of the Parish of Logie. For a time he was also chairman of the School Board. Local public bodies were represented at the funeral, and among the chief mourners were Dr. W. Halliday Welsh, Edinburgh, and Dr. J. Crawford Renton, Glasgow.

CONVALESCENT BELGIANS AT PERTH.

One hundred Belgian wounded soldiers arrived in Perth on 23rd inst. and were accommodated in the old infirmary, which is under the charge of the Red Cross Society. Nearly all were in a state of convalescence, having been removed from Glasgow in order to make room for other patients.

LETTERS TO THE EDITOR.

[We do not hold ourselves responsible for the opinions expressed by our Correspondents.]

THE PATHOLOGY AND TREATMENT OF EXOPHTHALMIC GOITRE.

To the Editor of THE MEDICAL PRESS AND CIRCULAR.

SIR,—Dr. Crookshank's brilliant and suggestive contribution to your columns on this subject (September 30th) will, I am sure, dwell long in the minds of those who had the privilege of perusing it.

In your issue for October 7th, Dr. Midleton refers to one of the many interesting points raised by Dr. Crookshank—viz., the association of Graves', or, as I prefer to call it, Parry's disease with certain types of arthritis. Some eight or ten years ago I reported in the *British Medical Journal* fourteen examples of the complete type of Graves' disease and six of the larval or incomplete type existing side by side with rheumatoid arthritis. I came to the conclusion that the relationship between these two diseases was not merely one of affinity, but that they might actually overlap in one and the same patient. In the fourteen examples of the complete variety the subjects were all females, and their average age was 29.9, the oldest being 52 and the youngest 18. The previous history was of a most varied character, in one the illness dated from her fourteenth confinement, in four the cause assigned was influenza, and in these one in addition had suffered from two attacks of "rheumatism," and another from anæmia. Of the rest, two gave a history of tonsillitis and rheumatism, one gastric ulcer and hæmatemesis, one scarlet fever, one sore throat, anæmia and ozæna, one again rheumatism, one anæmia, indigestion, and sore throat, one sick headache.

In two cases the symptoms of exophthalmic goitre had preceded by some years the development of rheumatoid arthritis. In the majority the two diseases apparently arose contemporaneously, but in one or two the symptoms of exophthalmic goitre were engrafted upon a previously existing rheumatoid arthritis. At the time they came under my observation the joint troubles had existed for varying periods, the minimum being three months, and the maximum two years in duration.

In ten out of the fourteen cases there were present in addition varying degrees of local syncope and local asphyxia of the fingers.

This co-existence of Graves' disease and rheumatoid arthritis suggest much food for thought. Thus, it will be recollected that a rapid pulse has long been regarded as very typical of rheumatoid arthritis. But from my observations this quickened pulse rate, though frequent, is not a constant feature, but tends to manifest itself in an erratic manner in cases of rheumatoid arthritis. This raises the possibility that in some instances it may be a larval manifestation of Parry's disease.

Much interest, and possibly some profound significance, attaches to the fact that many so-called secondary features of Graves' disease occur in the subjects of rheumatoid arthritis, and this in instances presenting none of the cardinal symptoms of the former disorder. Among these may be mentioned localised sweatings and fleeting œdemas of angioneurotic type, and in addition certain skin affections, such as leucoderma and scleroderma. Muscular cramps, too, simulating closely those of tetany have been observed in both diseases, likewise transitory glycosuria, while gastro-intestinal derangements and uterine disorders are common in both.

Further instances of the overlapping of the two conditions might be cited, but enough has been said to indicate the need for further observations regarding the obscure kinship that appears to prevail between rheumatoid or atrophic arthritis.

Dr. Crookshank draws attention in his paper to the association of Parry's disease with the infective types of arthritis. This I have also observed myself, and it may not be out of place to indicate the distinctions that may be drawn between rheumatoid or atrophic arthritis and infective arthritis, many examples of which are of undifferentiated character.

In the lack of positive bacteriological evidence we are compelled to rely on certain characteristics. No help is afforded us by consideration of the age incidence of rheumatoid and infective arthritis, but something may be gathered from the marked predilection of the former for the female sex. On the other hand, the recent occurrence of some infective malady known to be followed occasionally by non-purulent arthritis, such as dysentery, typhoid fever, and pneumonia, will constitute presumptive evidence of an infective arthritis. Similar inferences may be drawn from the presence of any local source of infection—viz., pyorrhœa alveolaris, otorrhœa, and so forth. Where such is not forthcoming, reliance must be placed on the following characters which appear to distinguish cases of infective arthritis in general from rheumatoid arthritis. Thus, in infective arthritis the general symptoms are often much more acute, temperature of higher grade, enlargement of the lymphatic glands in association with the affected joints is almost invariable, the spleen is also more commonly enlarged, while leucocytosis and a secondary anæmia are usually present.

Regarding the articular lesions, though all, or nearly all, the joints may be involved in any given case of infective arthritis, yet such widespread invasion is by no means the rule. What happens in the majority of instances is that at the onset the disease attacks one, two or three joints, and having done so shows no tendency to involve others, even after weeks or months have elapsed, during which the temperature may be more or less continuous of septic or irregular type. Again, the mode of distribution of the arthritic lesions differs in the two. In infective arthritis the larger joints have the preference, but the penchant of rheumatoid arthritis is for the smaller joints, the hands and fingers. Moreover, in the former the distribution of the lesions is erratic, while the tendency in rheumatoid arthritis is towards symmetrical involvement of the joints.

The shape of the joint swellings in both disorders is identical—viz., fusiform or spindle-shaped. But the joint in infective arthritis presents a definite red blush in most cases, whereas in rheumatoid arthritis it is unnaturally white or bluish in colour.

Again, widespread inflammatory œdema of the affected limbs is more common in infective arthritis.

Finally, in rheumatoid arthritis, as opposed to infective arthritis, we find an abundance of collateral phenomena. Thus, in those instances in which rheumatoid arthritis remains for some time confined to the small articulations of one hand (enhancing the possibility of confusion with infective arthritis by this asymmetrical distribution) the presence of vasomotor phenomena, neuralgic pains, or muscular cramps in the opposite hand will be in favour of its being rheumatoid in nature. This affinity on the part of exophthalmic goitre for associating itself not only with rheumatoid arthritis, but also with those infective forms of arthritis yet unaffiliated to any particular germ, may, we think, be taken as strong presumptive evidence that in all probability both Parry's disease and these two forms of arthritis are alike of infective origin.

I am, Sir, yours truly,
Llewellyn Jones Llewellyn.

41 Gay Street, Bath,
October 22nd, 1914.

THE MEDICAL REGISTER—LEGAL QUALIFICATION.

To the Editor of The Medical Press and Circular.

Sir,—May I once more ask you for your valuable assistance in reminding members of the profession that unless their names appear in the *Medical Register* they are not "legally qualified medical practitioners" (Medical Act, 1858, Section 34), and that the duty of notifying changes of address rests with them.

No person can "hold any appointment as a physician, surgeon, or other medical officer either in the military or naval service or in emigrant or other vessels, or in any hospital, infirmary, dispensary, or lying-in hospital, not supported wholly by voluntary contributions, or in any lunatic asylum, gaol, penitentiary, house of correction, house of industry, parochial or union workhouse or poorhouse, parish union, or other public establishment, body, or institution, or to any friendly or other society for affording mutual relief in sickness, infirmity, or old age, or as a medical officer of health, unless he be registered" (Section 36); and "no certificate required by any Act now in force, or that may hereafter be passed, from any physician, surgeon, licentiate in medicine and surgery, or other medical practitioner, shall be valid unless the person signing the same be registered." (Section 37.)

The *Medical Register* is the only official publication, and should not be confused with any of the various directories which issue circulars annually.

No one who is not familiar with the work of this office would believe the amount of trouble which is taken to keep in touch with practitioners, and to find them when touch has been lost; but, unless we are assisted by members of the profession ourselves, our efforts are often fruitless.

In consequence of cases which have recently occurred, it becomes increasingly important every year that the Registrar should carry out the duty laid upon him under Section 14 of removing from the *Register* the names of practitioners with whom he cannot communicate. It is done with reluctance, but only by this means can the public and the profession be protected against impostors. No doubt cases of hardship do sometimes arise in consequence of this removal of names, but every possible source of information is made use of to save practitioners from the results of their own forgetfulness, and if they are inconvenienced by finding that their names are off the *Register*, the blame does not rest with this office.

Perhaps I may add that, by a recent regulation, practitioners possessing medical and dental qualifications, if already on the *Medical Register*, may register in the *Dentists' Register* (or *vice versa*) for a reduced fee of £2 1s., instead of £5 1s.

I should also like to take the opportunity of drawing attention to the following resolution adopted by the Council on November 30th, 1911, and re-drafted on June 1st, 1914. It cannot be too strongly urged upon practitioners that, in giving certificates, they are recognised by law as members of a trusted profession, and that it behoves them to exercise the greatest possible care in the matter:—

1.—Certificates, Notifications, Reports, etc.

Registered practitioners are in certain cases bound by law to give, or may be from time to time called upon or requested to give, certificates, notifications, reports and other documents of a kindred character, signed by them in their professional capacity, for subsequent use either in Courts of Justice or for administrative purposes.

Such documents include, among others, certificates, notifications, reports, etc.,

(*a*) Under the Statutes relating to births, deaths, or disposal of the dead;

(*b*) Under the Acts relating to lunacy and mental deficiency and the rules made thereunder;

(*c*) Under the Vaccination Acts and the Local Government Board Orders made thereunder;

(*d*) Under the Factory Acts and the Home Office Regulations made thereunder;

(*e*) Under the Education Acts;

(*f*) Under the Public Health Acts and the Local Government Board Orders made thereunder;

(*g*) Under the Workmen's Compensation Acts;

(*h*) Under the Acts and the Local Government Board Orders relating to the notification of infectious diseases;

(*i*) Under the National Insurance Acts and the Regulations made thereunder;

(*j*) Under the Old Age Pensions Acts and the Treasury Regulations made thereunder;

(*k*) Under the Merchant Shipping Acts;

(*l*) In connection with sick benefit, insurance and friendly societies;

(*m*) For procuring the issue of Foreign Office passports;

(*n*) For excusing attendance in courts of justice, in the public services, in public offices, or in ordinary employments;

(*o*) In connection with naval and military matters.

Any registered practitioner who shall be shown to have signed or given under his name and authority any such certificate, notification, report, or document of a kindred character, which is untrue, misleading, or improper, whether relating to the several matters above specified or otherwise, is liable to have his name erased from the *Register*.

I am, Sir, yours truly,
A. J. Cockington,
Acting Registrar.

General Council of Medical Education and
Registration of the United Kingdom,
299 Oxford Street, London, W.
October 15th, 1914.

DR. H. CRICHTON MILLER ON INSOMNIA.

To the Editor of The Medical Press and Circular.

Sir,—If only to express my personal thanks and admiration, I trust you will give me a few lines for comment on Dr. H. Crichton Miller's super-excellent lecture on "Insomnia." Since the long series began it has been my custom to cut out of your pages those of the lectures that seemed worth preserving for future reference, and to classify them in portfolios. This I am doing with that of Dr. Crichton Miller. It forms the best concise epitome of the subject that I am at present acquainted with; and although I may not be able to write literary English myself, I am quite able to recognise that quality in the lecture that makes it so eminently readable. The lecture brings out one of the foremost points of the topic most clearly—the difference between true insomnia and mere restlessness or sleeplessness due to some merely physical and often trivial causation. I am treating such a case now. The patient is a highly intellectual man, 72 years old. He is suffering from high blood-pressure with arterial degeneracy, and a constant sensation of modified vertigo, following a severe attack a year ago. For some time there was added to these what was termed "insomnia." The patient, on going to bed at about 10.30, was kept awake through great part of the night by slight colic and much flatulence. It was found that the whole mischief was due to the fact that the patient was incapable of digesting any form of vegetable fibre, cooked or uncooked. He was making his principal meal in the middle of the day, and indulging in a fair quantity of lettuce and cucumber, which were, however, fresh from his own garden. He has now been restricted to a small quantity of ripe fruit, without rind or seed, at breakfast, and to cooked vegetables such as vegetable marrow, artichokes, and thoroughly braised unfibrous parts of celery and lettuce at his midday dinner. His evening meal includes no vegetable. His bowels are, of course, properly regulated. He takes 20 gr. of potass-bromide in a tumbler of hot water at bedtime. The "insomnia," as it was called, has completely ceased. He falls asleep quickly, and although aroused for a few minutes, owing to slightly enlarged prostate, to empty his bladder one or twice, has invariably a refreshing night's sleep. He sleeps also for a short time after his midday meal. His condition has vastly improved. The "insomnia" no longer terrifies him, and he has ceased to worry over and magnify constantly the troubles of life, including the war. The war, by the way, is giving sleepless nights to many loving souls anxious about their kin at the front. For these I know no cure. Occupation and preoccupation in helpful work brings them little solace and no peace of mind.

I am, Sir, yours truly,
An Obscure Practitioner.

October 15th, 1914.

FORCIBLE FEEDING.

To the Editor of The Medical Press and Circular.

Sir,—Let me once more point out to Dr. Sers that my object is to clear our profession from the disgrace of being the executioners in our prisons of a form of torture which it is now admitted is not medical treatment, but a means of terrorising prisoners.

That forcible feeding, like the Cat and Mouse Act, has failed to crush down the desire of women to be not slaves but free citizens of their own country for which they have done so much, and are doing still more in this war-time, is, of course, only natural. Such failure is the inevitable end of despotic reaction, which, as all history shows, is reduced to employing such loathsome means as physical torture when it is resisting a movement for political enfranchisement. Dr. Sers does too much honour to the Cat and Mouse Act by calling it "a weapon." If he would only study and analyse it, he would find (as I showed in my letter to you dated September 23rd, 1914) it violates all principles of British law from Magna Charta onwards. It is a monumental piece of folly as an act of legislation, and, as I pointed out at Leicester a year ago, it was also for medical reasons bound to fail. To return: At the present moment I have already shown (August 26th, 1914) our prison Medical Officers are in a dual capacity—viz., firstly as members of an honourable profession, whose duty is the relief of disease and pain; and, secondly, as members of the police force, whose duty may be the infliction of pain as executioners.

I again appeal to Dr. Sers to help in removing this stain on our name and on our humanity.

I am, Sir, yours truly,
Victor Horsley.

London.
October 20th, 1914.

[This correspondence must now be considered at an end.—Ed. M. P. and C.]

THE NATIONAL MEDICAL UNION AND THE £90,000 WINDFALL TO PANEL DOCTORS.

To the Editor of The Medical Press and Circular.

Sir,—In the interest of the general public and the medical profession, the Council of the National Medical Union have deemed it expedient to lodge with the Insurance Commissioners a protest against the allotment of their £90,000 medical benefit surplus. This surplus has accrued because nearly a quarter of a million insured persons would not elect a panel doctor to attend them during illness, and because the authorities entrusted with the fulfilment of the National Health Insurance Act did not distribute these insured persons severally amongst the panel doctors, and did thus disregard Section 15 (2) (d) of the Act, which provides for such system as will secure "the distribution amongst, and, so far as practicable, under arrangements made by, the several practitioners whose names are on the lists, of the insured persons who after due notice have failed to make any selection, or who have been refused by the practitioner whom they have selected."

Moreover, according to Section 14 (1) of the Act, it is provided that medical benefit shall be in all cases administered by and through the Insurance Committees and not by the Commissioners.

I am, Sir, yours truly,
Vivian T. Greenyer,
Chairman of Council of National Medical Union.
346 Strand, London, W.C.

WHEATMEAL OR OATMEAL BISCUITS FOR THE TROOPS IN WINTER.

To the Editor of The Medical Press and Circular.

Sir,—Will you allow me to suggest the above biscuits as being far more nutritious and supporting for our soldiers on active service than the white biscuits which they have now in France, from which most of the nutritive ingredients are extracted by the steel mills?

Wheatmeal bread is vastly superior to the white bread in general use, for, besides containing 30 per cent. more flesh-forming material, Liebig states that it has 200 per cent. more phosphatic salts to nourish the brain, nerves and tissues, and form strong bones and teeth. Its use cannot, therefore, be too highly recommended for both rich and poor, but it is especially necessary during the period of development and growth, when the bones and tissues require very active repair. One shilling's worth of wheatmeal bread contains three times more flesh-forming material, seventy times more heat-producing material, and three times more bone-forming material than a shilling's worth of beef. Hence the wisdom of adopting wholemeal or brown bread in place of white as an article of diet.

I am, Sir, yours truly,
Æsculapius.

Bishop's Waltham.
October 21st, 1914.

PRISONERS OF WAR—A CORRECTION.

To the Editor of The Medical Press and Circular.

Sir,—In your issue for October 14, among the list of those R.A.M.C. officers unofficially reported prisoners of war appears the name "Captain R. J. Coghill, R.A.M.C." This should read "Captain R. J. Cahill, R.A.M.C.," who is my brother, many of whose friends will be glad to hear of his safety. I may add that he and Capt. W. J. Thompson, nephew of Dr. Thompson, of Omagh, ex-M.P., are prisoners of war at Paderborn, some 60 miles from Hanover. Both were in excellent health on October 1st, when the last news came through.

I am, Sir, yours truly,
Francis Kennedy Cahill, F.R.C.S.I.

Dublin,
October 21st, 1914.

OBITUARY.

DR. A. H. H. M'MURTRY.

We regret to announce the death of Dr. Alexander Hay Hill M'Murtry, who passed away on the 18th inst. at his residence, Crumlin Road, Belfast. The deceased, who had been ill for about three months, was born at Ballynure in 1843, and at the age of seventeen he entered Queen's College, where he had a very successful career. He graduated as doctor of medicine with second-class honours in 1864 and as master of surgery in the following year. Dr. M'Murtry commenced practice on his own account in North Street, and almost the whole of his professional life was spent in Belfast. He built up a very large practice, chiefly among the working classes. On two occasions his patients showed their gratitude and appreciation by making him the recipient of handsome presentations. At college he acquired a strong love of Latin and Greek, and later he made a study of Hebrew, French, German, and Italian. His linguistic abilities were put to good use, and enabled him to make some very clear and capable translations from French and Hebrew literature. He was an ardent temperance reformer, and was indefatigable in his efforts to secure a drastic amendment of the licensing laws and to bring about a change in public opinion. He was a member of the Irish Temperance League for twenty years, and edited its monthly journal from 1889 to 1893; while he had the distinction of being one of the founders of the Independent Order of Good Templars. In recognition of his zeal and service in the crusade against the liquor traffic he was, in 1876, awarded a diploma and "Médaille d'Honneur" by the "Société Nationale d'Encouragement au Bien," whose tribute he highly valued. The deceased did not take any part in politics; temperance reform was his one great passion, and at election times he was wont to give his support to the candidate who proved himself most in accord with his views on that question. He is survived by his widow and a family of one son and six daughters, with whom much sympathy will be felt in their sad bereavement.

MEDICAL NEWS & PASS LISTS.

Royal College of Surgeons of England.

The annual meeting of Fellows and Members will be held at the College on Thursday, Nov. 19th, at 3 o'clock p.m., when a report from the Council will be laid before the meeting.

Fellows and Members can obtain copies of the report on application to the Secretary, and can, if they so desire, have their names placed on the list of those to whom the report is sent annually.

Motions to be brought forward at the meeting must be signed by the mover, or by the mover and other Fellows and Members, and must be received by the Secretary not later than Nov. 9th.

St. John Ambulance Brigade in Ireland.

It has been announced that the War Office has made Ireland an official District (No. 12) of the St. John Ambulance Brigade, with headquarters at 4 Fitzwilliam Place. Dr. Lumsden will act as Deputy Commissioner, Dr. Pringle as District Superintendent, Dr. Ella Webb as District Lady Superintendent, Captain Stevenson as District Surgeon, Miss Blandford as District Secretary, Dr. Geo. Cope as District Treasurer, Dr. Wynne as District Inspector of Stores, and Miss MacDonnell, who was in charge of the Irish hospital in the South African war, as Lady Corps Superintendent.

University of Cambridge.

The following degrees have been conferred:—

M.D.—R. F. Higgin, Caius.

M.A.—E. H. Strugnell, Trinity; E. F. Tozer, St. John's; M. Frost, Corpus Christi.

M.B. and B.C.—L. E. S. Sharp, Trinity; C. G. H. Moore, Caius.

Society of Apothecaries of London.

The following candidates passed the necessary examinations, October, 1914, and have been awarded the L.S.A. diploma of the Society entitling them to practice medicine, surgery and midwifery:—P. H. Burton and J. Stephenson.

Trinity College, Dublin.

The following candidates have passed the special preliminary examination for medical students:—Abgar Aidin, Geoffrey Benson, John C. J. Callanan, Joseph H. C. Dobbs, John C. St. G. Earl, Malcolm Elvery, Derrick Fishbourne, James J. Fitzgerald, Albert V. Foster, Joseph C. Gillespie, Gerard Holmes, Falkland Litton-Cary, Cecil McQuade, Edward H. Montgomery, Richard D. Murphy, Henry I. E. Powell, Richard W. Power, Frederick W. Robertson, George F. T. Saunders, Richard W. Shaw, Leonard W. H. Stevenson, Wilfrid E. C. Wynne.

University College, Cork.

The following candidates have passed the Autumn examinations, 1914:—

First Medical.—Cornelius Cotter, Thomas J. Duane, Daniel A. Fitzgerald, Anne Hegarty, Dermot Kelleher, Josept Kelleher, Jeremiah J. Murphy, John N. J. O'K. Murphy, John J. Fr. O'Sullivan, Helena Pomeroy, William Richardson.

Chemistry and Physics.—Thomas J. Coakley, James Cuddigan, Denis Sheahan.

Botany and Zoology.—William H. Kelleher, Edward G. O'Gorman.

Second Medical.—First Class Honours: Patrick T. Murphy, Edward P. N. Creagh. Second Class Honours: Elizabeth J. O'Driscoll, John J. A. Sheehan, Charles V. Macnamara, Paul Kingston, Joseph P. Hennessey. Pass: J. E. Ambrose, Julia M. Brown, Edward P. N. Creagh, Albert St. J. Hennessy, Joseph P. Hennessy, John P. Hosford,, Paul Kingston, Chas. V. Macnamara, Patrick T. Murphy, Elizabeth J. O'Driscoll, Joseph B. O'Regan, Daniel J. O'Sullivan, Samuel G. Seymour, John J. A. Sheehan.

Second Dental.—William F. Foley.

Third Medical.—First Class Honours.—Bridget I. O'Connor, Jeremiah O'Mahony, James M. O'Donovan, B.Sc., Michael J. Whelton. Second Class Honours: Patrick Collins, Timothy J. Kelleher, Denis Donovan, John Holmes, Gerard M. Herriott. Pass: Patrick Collins, Daniel J. Donovan, Denis Donovan, Denis Fennell, Gerard M. Herriott, John Holmes, Timothy J. Kelleher, Patrick J. F. Lynch, Daniel McCarthy, Timothy Moloney, Timothy C. Murphy, Michael J. O'Brien, Bridget I. O'Connor, James M. O'Donovan, B.Sc., Jeremiah O'Mahony, Jerome J. O'Mullane, James Reidy, John C. Saunders, Thomas H. Twigg, Michael J. Whelton.

M.B., B.Ch., B.A.O. Degrees.—First Class Honours: Timothy F. A. Dilworth. Pass: Henry Alcock, Timothy Fr. A. Dilworth. Pass in Surgery, Ophthalmology, and Midwifery: Thomas Kennedy, John J. Liston, Mary J. O'Connor, B.A. Pass in Midwifery: Cornelius J. Lenahan.

M.D. Degree.—First Class Honours: Thomas P. O.B.Magnier.

University College, Galway.

The following are the recommendations of the Examiners at the Autumn Examinations, 1914:—

B.Sc. Degree Examination.—Anatomy and Physiology—First Class Honours—Joseph F. Donegan. Second Class Honours—Charles C. O'Malley. Pass—Joseph F. Donegan, Charles C. O'Malley.

D.Sc. Degree.—The Examiners recommend the following candidates for the degree of D.Sc., for published work on Chemistry:—Rosalind Clarke, B.A., Arthur J. W. Compton, B.A., M.B., B.Ch., B.A.O., Frederick Shepheard, B.Sc.

M.B., B.Ch., B.A.O. Degrees Examination.—Second Class Honours—James T. MacManus. Pass—James T. MacManus, Herbert Smith.

Third Examination in Medicine.—First Class Honours—Andrew F. Smyth. Pass—Andrew F. Smyth.

Second Medical Examination.—First Class Honours—David Rowland. Second Class Honours—John P. Kilfeather, Thomas P. Shannon. Pass—Thomas F. Armstrong, Arthur E. J. Connolly, John P. Kilfeather, Peter Killacky, John A. J. Mullin, John J. Nohilly, David Rowland, Thomas P. Shannon.

First Medical Examination.—Pass—James Drury, Edmund J. Keenan.

Pass in Part II (Biology).—Patrick J. Clancy, Patrick J. MacAlinney.

University of Glasgow.

In the Second Professional Examination (Old or New Ordinance) and Third Professional Examination (New Ordinance), the following candidates have passed in the subjects indicated (A., anatomy; P., physiology; M., materia medica and therapeutics):—

William Adams (A.P.), John Ashforth (A.P.), George W. Allan (A.P.), John Ashforth (A.P.), Alexander

B. Austin (A.), John W. W. Baillie (A. P.), William Baird (M.), Joseph E. Bannen (M.), Monindra N. Bhattacharjie (M.), Thomas Blackwood (M.), John Bradford (A.P.), Alexander G. Brand (A.), James P. Broom (M.), Archibald C. Brown (M.), Henry D. Brown (M.), John A. Buchanan (M.), Stuart E. A. Buckley (M.), Robert S. Caldwell (A.P.), Duncan Cameron (M.), William J. S. Cameron (A.P.), John M. Clark (P.M.), David Clyde (M.), Alexander F. Cook (M.), Archibald S. Cook (M.), Walter G. Cook (M.), Harold L. Coulthard (A.P.), John S. Craig (A.P.), James Crerar (M.), Harold A. Cruickshank (A.P.), Robert Cunningham (M.)., George del Pino (A.P.M.), Michael Devers (A.P.), Andrew Dick (A.P.), Samuel N. Dykes (M.), William Edgar (A.), James P. Fleming (A.P.), Thomas Forrest (A.P.), Walter W. Forsyth (A.P.), Lewis L. Fotheringham (M.), Robert J. L. Fraser (A.P.), James B. Galbraith (A.P.), Leonard W. Gemmell (A.), Arthur B. Gibson (A.P.), William H. Gibson (M.), John C. Gilmour (M.), William H. Gordon, M.A. (A.P.), George O. Grant (A.P.), Thomas Gray (M.)., William R. D. Hamilton (A.P.), David Heard (M.), Samuel J. Henderson (M.), John Hislop (A.P.), Henry F. Hollis (A.P.), James R. R. Holms (A.P.), Edward P. Irving (A.P.), Jacob Joels (A.P.), Stewart Johnstone (M.), William H. Kerr, M.A. (A.P.), Frederick C. Logan (M.), Kenneth M'Alpine (A.P.), Patrick Macdiarmid (M.), Neil Mackillop (A.P.), Donald J. Mackinnon (A.P.), John W. Maclean (M.), Peter M'Luskie (A.P.), Alexander F. M'Millan (M.), John Marshall (A.P.), Jules S. Martin, M.A. (A.P.), George M. Millar (M.), Archibald S. Miller (A.P.), David S. Mitchell (A.P.), James Moffat (A.), Douglas J. Nicoi (A.P.), William Nicolson (A.P.), James A. Paterson (M.), George Pearson (A.P.), Humphrey Robertson, M.A. (A.P.), Robert Rodger (M.), John L. Rowlands (A.), Angus M. Scott (M.), Henry B. Sergeant (A.P.), James Shaw (A.P.), James H. Shearer (A.P.), Thomas R. Sinclair (M.), Andrew W. Smith (A.P.), Clarence L. Somerville (A.P.), James Steel (M.), John Steele (M.), Abraham R. Steinberg (M.), Pat A. Stewart (A.), Henry Stuart, M.A. (A.P.), George C. Swanson (M.), Douglas Taylor (A.P.), Herbert W. Torrance (M.), William H. Wallace (A.P.), Robert R. Waters (M.), Robert S. Weir (M.), John P. White (A.P.), Robert Wiggins (A.P.), George Young (A.P.), William Young (A.P.).

Women.—Janetta M. Alexander (A.P.), Maud C. Cairney (M.), Winnifred J. Crawford (M.), Jean M. Frew (A.P.), Margaret O. Gallagher (A.), Jessie C. Gilchrist (M.), Margaret H. Glen (A.P.), Jean L. Hamilton (M.), Alison M. Hunter (A.P.), Grace L. Hunter (A.P.), Elizabeth C. M'Haffie, M.A. (P.), Robina S. Mackinnon (A.P), Jessie B. Maclachlan (A.P.), Lilias Maclay (A.P.), Mary A. M. MacLean (M.), Margaret K. Mitchell (M.), May I. T. Reid (A.P.), Jessie N. Robertson (A.P.), Mary Scott (M.), Jane Stalker (M.), Marion Watson (A.P.), Mary M. Weir, M.A. (A.P.), Alison E. Wilson (M.)

In the Third Professional Examination (Old or New Ordinance) and Fourth Professional Examination (New Ordnance) the following candidates have passed in the subjects indicated, (P., Pathology; M., Medical Jurisprudence and Public Health) :—

William D. Allan (P.), William Baird (P.), Joseph E. Bannen (P.), Thomas Blackwood (P.), Archibald C. Brown (P.), Henry D. Brown (P.), John A. Buchanan (P.), Stuart E. A. Buckley (P.), Duncan Cameron (P.), David Campbell, M.A., B.Sc. (P.), Dugald S. Campbell (M.), Wm. Campbell (P., M.), Moses W. Cantor, B.Sc. (P., M.), Joseph Chalmers (P.), David Clyde (P.), William K. Connell (P.), Alexander F. Cook (P.), Archibald S. Cook (P.), Walter G. Cook (P.), John N. Cruickshank (P.), John F. Cunningham, M.A. (M.), Robert Cunningham (P.), Alexander Dick (M.), Ronald S. Dickie (P., M.), William Donald (M.), Samuel N. Dykes (P.), Lewis L. Fotheringham (P.), Matthew M. Frew (P.), David G. Gardiner (M.), Robert S. Gibson, B.Sc. (M.), Norman W. Gilchrist (M.), Samuel J. Henderson (P.), William Y. Jamieson (P. M.), Stewart Johnstone (P.), George Kirkhope (P.), John C. Knox, B.Sc. (M.), Robert Kyle (P. M.), James A. Leiper (P.), Robert Lindsay, M.A. (P.), Hugh L. M'Cormick (P. M.), Donald K. MacDougall (P.), David M'Farlane (M.), James W. Macfarlane (P.), John M. Macfie (M.), John MacInnes (P.), James M. MacKay (P.), Keith S. Macky (P.), Alexander F. M'Millan (P.), David M'Neill (P. M.), Eric J. MacPhail (P.), Noah Morris, B.Sc. (P. M.), Alexander Morton (P.), John H. Murray (M.), William O'Brien (P.), Arthur W. Panton (P.), Thomas S. Paterson (M.), James H. Paul, M.A., B.Sc. (P. M.), William J. Pool (M.), William B. Primrose (M.), John K. Rennie, B.Sc. (M.), James Richardson (P.), Robert Rodger (P.), George W. Ronaldson (P.), Alexander F. Ross (P.), Kenneth M. Ross (P.), Angus M. Scott (P.), William F. Shanks (M.), James Steel (P.), John Steele (P.), Abraham R. Steinberg (P.), William M. Stewart (P.), John Stirling, B.Sc. (M.), George C. Swanson (P.), Robert Taylor (P.), Herbert W. Torrance (P.), John D. Watson (P., M.), William J. C. Watt (P.), Robert J. Wilson (P., M.).

Women.—Christina B. Buchanan (P.), Maud C. Cairney (P.), Ann K. Cormack (M.), Winifred J. Crawford (P.), Jane B. Davidson (P.), Jessie C. Gilchrist (P.), Jean L. Hamilton (P.), Janet F. Henderson (M.), Helen I. W. Kerr (P.), Dorothy M'Cubbin (P., M.), Mary A. M. MacLean (P.), Effie C. M'Vie (P., M.), Elizabeth S. Martin (P.), Margaret K. Mitchell (P.), Janey L. Munro (M.), Helen Y. Murdoch, M.A. (P.), Mary H. Routledge (P.), Mary Scott (P.), Mary I. Sinclair (M.), Jane Stalker (P.), Alison E. Wilson (P.), Marion B. D. Wilson (P.).

At the recent professional examinations for the degrees of M.B. and Ch.B. the following candidates passed with distinction in the subjects indicated :—In (a) Physics and (b) Chemistry—Archibald D. Brown. In Botany—Duncan M. Blair, Donald C. Bowie, Andrew M. Davidson, John Donald, Robert G. Letters, William B. M'Queen, Allan W. M'Rorie. In Zoology—Archibald S. Strachan, M.A., B.Sc.; Lydia I. H. Torrance. In Physics—William Gibson, William Harrison, John G. Harrower, Morris Hyman, Alice M'Glashan. In Chemistry—James Stewart, John S. Young. In Pathology—Alexander F. M'Millan, Noah Morris, B.Sc. In Medical Jurisprudence and Public Health—John C. Knox, B.Sc.; John M. Macfie, William F. Shanks, B.Sc. In (a) Anatomy and in (b) Physiology—Jules S. Martin, M.A.; in Physiology—William Adams, Henry Stuart, M.A.; in Materia Medica and Therapeutics—Frederick C. Logan.

Royal College of Surgeons of Edinburgh.

At a meeting of the College held on October 21st, the following gentlemen, having passed the requisite examinations, between July 6th and 11th, 1914, were admitted Fellows:—

Thomas S. Allen, M.R.C.S.Eng., L.R.C.P.Lond., Arthur J. Ballantine, M.B., Ch.B.Univ.,Edin., Norman H. Bolton, M.B., Ch.B.Univ.Edin., Henry H. Davis, M.R.C.S.Eng., L.R.C.P.Lond., Henry E. K. Fretz, L.R.C.S.E. (triple qualification), William G. Goudie. M.B. Ch.B.Univ.Glasg., David L. Graham, M.B., Ch.B.Univ.Glasg., Capt., I.M.S., John D. Gunn, M.B., Ch.B.,Univ.Edin., Douglas J. Guthrie, M.D.,Univ.Edin., Arthur J. G. Hunter, M.D.Univ.Edin., John B. D. Hunter, M.B., Ch.B. Univ.Glasg., Capt., I.M.S., Frederic G. Lloyd, M.R.C.S.Eng., L.R.C.P.Lond., Richard M. Manwaring-White, M.D.Univ.Edin., Francis L. Nash-Wortham, M.R.C.S.Eng., L.R.C.P.Lond., John W. Pell, L.R.C.S.E. (triple qualification), Garfield A. Platt, L.R.C.S.E. (triple qualification), etc., Edmund L. Reid, M.B., Ch.B.Univ.Aberd., James W. Richardson, M.R.C.S.Eng., L.R.C.P.Lond., etc., Sydney J. Simpson, M.B., Ch.B.Univ.New Zeal., Leslie J. Thompson, M.B., Ch.B.Univ.New Zeal., Denis B. Walshe, M.B., B.S.Univ.Melb., Russell E. Walker, M.B., Ch.B.Univ.Edin., and Walter Q. Wood, M.B., Ch.B.Univ.Edin.

At the same meeting, Mr. J. M. B. Hodsdon was elected President of the College for the ensuing year.

The Right Hon. Christopher John Nixon, first baronet, P.C., M.D., LL.D., aged 65, of 2, Merrion Square North, Dublin, and of Roebuck Grove, Milltown, Co. Dublin, D.L., a former President of the Royal College of Physicians in Ireland, left personal estate in the United Kingdom valued at £41,087.

MEDICAL WAR ITEMS.

The following interesting article, under the title "Among the Wounded," by L. Haden Guest, M.R.C.S., appeared in *Reynolds's Newspaper* for the 25th inst.:—

"I have just returned from France, where one sees the horrors of war at close quarters. By the time this article appears I shall have returned again to France. On September 29th we set out—surgeons, anæsthetists and nurses—to establish hospital units in Paris and Limoges. Ten tons of stores followed us a couple of days later. One of our party, Sister Beatrice, returned to tell of the state of affairs in Limoges. We have seen something of the terror of war, and not a little of its glory—bodies that are shattered, and spirits that pass through it untouched, or strengthened.

"At Limoges, General Pelecier, commanding the Twelfth Region, placed at our disposal an art school and the Musée Céramique de Bouchée. Expeditiously we made the necessary alterations, completing them in four days. On the third day we commenced to admit wounded, and in a week we had 150 of them. The French authorities, whose courtesy throughout has been characteristic and most gratifying, placed at our disposal a body of soldiers and two military interpreters. One of these latter is a volunteer. He had just been appointed Professor of Languages at Minneapolis University, but had volunteered for war service. He ranks as a second-class private. The other, also a University man, is a reservist who had already been wounded at the front. We had a military motor car placed at our disposal, driven, by the way, by a Marquis—the Marquis de la Motte. He also is a 'full private.' Once in working order, our unit soon made itself felt. It was surely no bad compliment to us that the French authorities released for service at the front ten of their surgeons who had been working at Limoges.

"That our work is a necessary one admits of no doubt. For so many wounded the French Red Cross arrangements are not at this time adequate. The state of affairs tends decidedly to improve as far as the treatment of wounded is concerned, but the numbers are, of course, increasing, and with them the need. The morale of the organisation is improving, and we are getting a hold on things.

"The kind of wounds we have to deal with is an exceedingly severe one, of which those inflicted by shrapnel under artillery fire are the worst. The men are wounded in many places, and compound fractures of bone are very common. The modern pointed bullet, too, is an extremely destructive thing. It doesn't go straight through, but turns and produces a lacerated wound. This must not be confused with the much-discussed 'dum-dum,' or expanding bullet. I personally have seen no evidence of these having been used, but I have seen very large wounds undoubtedly caused by the pointed bullet. The worst feature of the wounds arises from the fact that the patients usually reach us some days after the first field dressings. In the interval the men are travelling in railway trucks, and there is no fresh dressing. The result is that they are in an exceedingly septic condition. Gaseous gangrene is very common, and so, unfortunately, is tetanus. The fighting takes place on cultivated ground, which has been manured for generations, and where the drainage is thick. This is precisely the sort of ground in which the germs of gaseous gangrene and tetanus thrive. The rapid development of the former complaint is astonishing. I have seen the case of a man wounded on a Monday, whose arm by the following Thursday was black, helpless and odorous with the complaint. Prophylactic injections have been invaluable in the case of tetanus, and since we have been using the serum in the hospital we have had no cases of this complaint. But the supply is short.

"I have referred to our Marquis-chauffeur. The rally of all classes to a common service is one of the most striking and pleasing features of our work. Some of the best-known people in European society visit us. Here is an incident which serves to indicate the extent to which 'it's all the same to-day.' I asked one of our bearers what was the price of electric light in Paris. He paused in the work of looking after bed-pans to assure me that he didn't know. His valet always paid his electric light bill!

"Gruesome sights? Of course there are plenty. Some with which I shall not gratuitously horrify my readers. When we removed the bandages from a patient at Montereau, we found that all his face had gone, save the covering of a small portion of the jaw. The vocal cord was visible. One night we had the eerie experience of a bass voice calling piteously for 'Mammy.' A soldier, shot in the head, had become insane, and was literally 'an infant crying in the night.' We have had seven deaths in one night in twenty-five beds.

"We have now two units—one at Paris, under the Union des Femmes de France, and our Hospital Militaire Anglais at Limoges, under the military authorities. I have the money to establish two others, and there are many places in which this work could be done. I have visited Bordeaux, and have had offers of several important chateaux for hospital purposes, including the Chateau d'Amboise, with its historic associations.

"I do not want to create the impression that the work has only its gruesome and its gloomy aspects. There are many cheering incidents, prominent among which I must place the bravery of the French lady who stayed behind at Brayn to nurse the wounded after the town had been evacuated. The demeanour of the wounded, too, is wonderfully cheerful. One case will remain in the memory of all the party. It was that of a French soldier, from whom we had amputated his two legs and one arm. The other arm would have been taken off, but death forestalled us. The only words one heard from that soldier were apologies for the trouble he was giving. The only words, save for one grim joke. As he lay in bed with his solitary limb, he remarked to his attendant: 'A pity I have not another arm! We might play cards!' That man had the face of a saint."

The Buxton Council has resolved that officers, soldiers, and sailors of the Allied Forces invalided to Buxton shall receive the Buxton mineral water treatment free of cost. The proprietors of the Droitwich Brine Baths have agreed to give similar facilities to officers, soldiers, and sailors invalided home.

The committee of the Allied Forces Base Hospital, of which the Duchess of Roxburghe is president and Sir Starr Jameson chairman, is making an appeal for additional funds. The hospital, which is fully equipped, is installed at the Hotel Christol, Boulogne, close to the railway station, where the trains with wounded from the front arrive. Six motor-ambulances have been given to the hospital, so that the more serious cases can be brought direct from the firing line and treated as efficiently as they could be in London.

The Metropolitan Asylums Board have placed the Park Hospital, Hither Green, at the disposal of the Refugees Committee as a temporary home. The institution was undergoing preparation for being utilised again as a fever hospital, and the children patients which have hitherto been treated there had left. The other day 600 fugitives of all classes—some who had been tradesmen in Belgium, others who were peasants—who had reached Folkestone during the morning, arrived with their families and were received by Dr. Birdwood, the Medical Superintendent.

A medical and surgical unit will leave Southampton to-morrow *en route* to Malta, Salonika, and Nish, under the Serbian Relief Fund, aided by the Order of St. John of Jerusalem, for the assistance of the sick and wounded of Serbia. Prof. Morrison, F.R.C.S., Senior Surgeon of the Queen's Hospital, Birmingham, is Surgeon-in-Chief of the expedition, which consists of over fifty persons.

Dr. Barty King will give a lecture, illustrated by the epidiascope, on "Germany in War Time," with an acount of his experiences amongst the German wounded, to the nurses of the Tuberculosis School of the Royal Hospital for Diseases of the Chest, City Road, in the lecture theatre, on Tuesday, Nov. 3rd.

Summary of Recent Medical Literature English and Foreign.

Specially compiled for The Medical Press and Circular.

Intravenous Ether Anæsthesia.—Kummell (*Surg., Gyn. and Obss.*, xix., 3) used this method in 250 cases, and considers intravenous anæsthesia especially fitted for operations upon the face, head and neck, as it gets over the trouble of the anæsthetist being in the way and delay in operation by incomplete anæsthesia. The method has turned out surprisingly well in 30 cases of tumour of the jaw. In the case of patients who were weak the method had advantages, and the anæsthetic could be given in conjunction with saline solution. Such patients often leave the operation with stronger and better heart action. Vomiting and nausea after laparotomies were never noticed. Thromboses at the site of the injection were frequent in the early cases. In those cases of carcinoma which died soon after operation, it was found that when the ether and salt solution was allowed to enter the vein interruptedly there were tolerably thick, hard thrombi partially stopping the collateral vessels. In a later group by an improved method, and where the stream was continuous, there was no case of thrombosis. One case of pulmonary tuberculosis appeared to be made worse, and in a case of amyloid kidney there was an increase of albumin in the urine for a few days. No change could be demonstrated in the blood. The anæsthetic has been given for 140 minutes, during which time 1,700 c.c. of the ether solution was used, equal to 85 gm. of ether. Before continuous injections were started, there were two cases that became cyanotic, and one that required artificial respiration. The addition of 1 to 1½ per cent. solution of isopral is considered a good supplement in inducing intravenous ether anæsthesia.

F.

The Levator Ani Muscle in Perinæorrhaphy.—Jellett (*Surg., Gyn. and Obs.*, xix., 3), dealing with the suturing of the levator ani in perinæorrhaphy, shows that this is not difficult and is not followed by any risk. The practice should be adopted in all operations for the repair of the perinæum, and is an essential part of successful operations. The method has been adopted in 346 cases without any unpleasant after results. The essential features of the operation are:—The careful dissection of the necessary amount of vaginal mucous membrane from the rectum, the exposure and suture of the separated levator ani muscle, the careful approximation of the cut edges of the vaginal mucous membrane, in such a manner as to leave no projection or redundancy. The operation is fully described. In conclusion, it is stated that routine suture of the levator ani is always practicable, except when the muscle is wanting owing to atrophy after injury. Such absence is very rare, and when it occurs it is impossible to reconstruct the perinæum satisfactorily. The exposure and suture of the levator ani is neither difficult nor dangerous. F.

Mastitis Lactantia.—Keyes (*Surg., Gyn. and Obs.*, xix., 3) classifies the inflammations that may occur in the mammary gland during nursing into supra-mammary by infection gaining access through some superficial skin abrasion outside the nipple area; true mammary infections which are either primarily intraductal and intra-acinous or extra-acinous from infection of the stroma lymphatics by contiguity—*e.g.*, from a primary infection in the axillary glands extending to the mammary gland periphery, and hæmatogenous, as in mumps. The care of the breast before and during lactation is considered, and diagrams included to illustrate the various sites of abscess formation, and the treatment of inflammation and abscess discussed.

F.

Complete Prolapse of the Uterus.—Novak (*Surg., Gyn. and Obs.*, xix., 3), dealing with the surgical treatment of this condition, says that no other operation offers as great a probability of permanent cure as does the Watkins-Schauta operation. It is decidedly a major one. Unless the uterus is very small and atrophic, so that it offers no support to the bladder, or unless there is a suspicion of malignancy, it is better to retain it. The cervix should be amputated only when long and hypertrophic, or when eroded. A well-done perinæorrhaphy is essential for success. Some cases are briefly noted in which there is a subsequent falling of the uterus after operation, and from the description given it appears they are true cases of uterine prolapse, while the successful cases are either vaginal prolapse or partial uterine prolapse, and the failures are due to neglect of the necessary support of the cervix at a proper level at the same time as the interposition operation is performed.

F.

Syphilis of the Lung.—Burnham (*Boston Med. and Surg. Jnl.*, September 10th, 1914) considers that syphilis of the lung, though admittedly of infrequent occurrence, deserves much more attention than is at present given to it. He records the case of a woman who, presenting symptoms of lung trouble, was believed to have tuberculosis of the lungs. In spite of the fact that no tubercle bacilli were found in the sputum, she was admitted to a sanatorium, which, however, she left after one month's residence, against the advice of the medical officer. Her disease was at that time diagnosed as advanced tuberculosis. She was subsequently seen by two practitioners at different times, each of whom made a similar diagnosis. Seven months after she left the sanatorium she came under the care of Dr. Burnham, who, owing to the absence of tubercle bacilli in the sputum, and the presence of a strongly positive Wassermann reaction, decided that she was suffering from syphilis of the lung. Her condition rapidly improved on antisyphilitic treatment, and within a month all symptoms of lung trouble had disappeared. Burnham concludes that syphilis produces in the lung pathological changes, which in turn produce symptoms and physical signs that are identical with those produced by pulmonary tuberculosis. So much is this the case that the two conditions are confounded by the most skilful diagnosticians, and great injustice is done to the patient and great suffering inflicted on his family by sending him to a tuberculosis sanatorium. Patients who present the symptoms of tuberculosis of the lungs with open lesions, yet in whose sputum tubercle bacilli cannot be found, should be very carefully examined for any evidence of syphilitic infection.

K.

A Second Infection with Syphilis.—Corbus (*New York Med. Jnl.*, September 5th, 1914) records the case of a man, æt. 25, who in January, 1911, presented himself for treatment with well-marked secondary syphilis. During the year 1911 he was given four injections of 0.6 gm. of salvarsan, and in the intervals between the injections he used continuous, vigorous mercury rubbings. Repeated Wassermann examinations were made from the time he came under observation till December, 1913, but no positive result was obtained after May, 1911, some three months after the second dose of salvarsan. The patient remained quite well till February of this year when he was again exposed to the infection of syphilis, and a month later developed a sore which was followed by secondary symptoms some six weeks later. A Wassermann examination of the blood made at this time was found to be strongly positive, though the reaction in the cerebro-spinal fluid was negative. K.

Syphilis of the Nervous System.—Mitchell (*New York Med. Jnl.*, September 26th, 1914) reviews the recent developments in our diagnosis and treatment of syphilis of the central nervous system. He believes that our present knowledge of syphilis of the nervous system justifies special emphasis being laid on the following points. The so-called parasyphilitic diseases of the nervous system are now known to be late specific lesions due to the presence of *Treponema pallidium* in the affected tissues, and hence the conception of parasyphilitic disease is no longer tenable. A small percentage of syphilitics, for reasons not clearly understood, manifest types of cerebro-spinal syphilis which have always been specially resistant to any known treatment. Thorough and intensive treatment, aiming to destroy the last spirochæte in the early stages of the disease, affords the best known preventive. The efficacy of such treatment can be determined only by the use of laboratory methods, which should be employed in all cases of syphilis. Study of the cerebro-spinal fluid is imperatively demanded in the diagnosis of syphilis of the nervous system. Intraspinous treatment offers some hope of checking the disease, and is the only route by which "spirochæticidal" agents can be brought directly in contact with the tissues bathed by the cerebro-spinal fluid. More general application of this measure and longer observation of the patients thus treated are needed for the final estimation of its therapeutic value. K.

REVIEWS OF BOOKS.

MORRISTON DAVIES' MINOR SURGERY. (*a*)

The present is a fitting time for the appearance of a new edition of Morriston Davies' well-known little manual of minor surgery and bandaging. Any practitioner or newly qualified man undertaking Army or Red Cross work could have no handier companion in his kit for general reference. Modern surgery is so rapid in its advances that it becomes absolutely necessary for the medical man to inform himself of recent methods from time to time. The book contains a large amount of information not given in the formal treatises on surgery, and its perusal will impart a good deal of knowledge that could otherwise be acquired only as the result of a great expenditure of time and labour. The author's treatment of the subject is eminently practical, witness the first two chapters, in which he deals with asepsis, preparation for operations, the dressing of wounds and the examination of the patient. It teems with practical hints that might easily elude recognition or escape the memory, as, for instance, the fact mentioned *passim* that iodoform is destroyed by exposure to heat, and that iodoform dressings must be sterilised by formalin vapour or 1 in 20 carbolic acid solution; that corrosive sublimate is useless in alcoholic solution; that indiarubber gloves may be boiled in water, and can be drawn upon the hands if the latter be moistened with spirit, but that the glove should be drawn over the lower end of the surgeon's sleeve, so that any loose water may be absorbed; and so on and so forth. The section dealing with treatment after operations is of special value in a book of the kind under notice. Needless to say, the safety of the patient may be determined by that after-cure which is rarely in the hands of the surgeon himself. The relief of thirst by giving the patient plenty of water is advocated, and the old idea of allowing only occasional sips of water is very properly condemned. Under constipation we note that no mention is made of liquid paraffin, which might be used with advantage to replace olive oil in enemata, as a more effectual and less costly lubricant. A useful warning is given against poisoning by antiseptics, a complication that is sometime overlooked. A clear description is given of transfusion and infusion. Transfusion has now become a fairly perfect operation, thanks to the work of Crile, Carrell and others. The need of scientific exactitude in its performance is abundantly indicated in the following sentences (p. 187):—"The blood of the donor must be tested with that of the recipient to ensure the existence of affinity between them, else the former will hæmolyse the latter, and the recipient will die. During the transfusion the intima of the artery (of the donor) must be in complete contact with the intima of the vein (of the recipient), no foreign substance intervening. The Wassermann test of the donor's blood must of course be negative." It is obvious that under these circumstances transfusion is not an operation for an emergency, as a day or two must elapse for the application of the blood tests. The *technique* of intravenous infusion is described, with the usual exposure of veins and ligatures. No mention is made of a quick way of introducing a small amount of saline from a large syringe the needle of which is introduced into the distended vein, as in the administration of salvarsan. With a little management several syringefuls might be thus introduced. The good old-fashioned leech is mentioned, but it is added that "a much cleaner way of abstracting blood is Heurtloup's artificial leech." There is no need to go into detail over the rest of the book, which deals clearly and succinctly with the large variety of subjects included under the head of minor surgery. The smaller surgical operations are well described, and there is a capital section on fractures and dislocations. The text is accompanied by many illustrations, and in spite of the fact that this popular little manual has attained the dignity of a fifteenth edition, it has been kept within a modest compass. It would be difficult to name a better book of the kind for the medical man contemplating or actually engaged in active service.

ORGANIC CHEMISTRY. (*a*)

The chief value of this book lies in the very comprehensive exposition of formulæ which the author supplies. It has been written to meet the new syllabus of the lower examination in the Board of Education Examinations in Science and Technology. It is also intended for the use of candidates for the medical examinations in organic chemistry. The subject is handled in an elementary manner which renders it easily studied by anyone who possesses a modicum of knowledge of inorganic chemisty. Dr. Clarke in his introductory chapter already clears away many of the difficulties which beset the student when he sets out to master the subject for the first time, and all through the volume he endeavours to make smooth the path of the reader. Altogether the author has succeeded in producing a text-book of organic chemistry which in many respects is unique, and which is certain to become a favourite with students, medical and otherwise. As a clear, accurate, and practical introduction to this somewhat difficult subject we can thoroughly recommend this admirable text-book.

NOTICES TO CORRESPONDENTS, &c.

☞ Correspondents requiring a reply in this column are particularly requested to make use of a *Distinctive Signature or Initial*, and to avoid the practice of signing themselves "Reader," "Subscriber," "Old Subscriber," etc. Much confusion will be spared by attention to this rule.

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ADVERTISEMENTS.

For One Insertion:—Whole Page, £5; Half Page, £2 10s.; Quarter Page, £1 5s.; One-eighth, 12s. 6d.

(*a*) "Minor Surgery and Bandaging: A Manual of." By H. Morriston Davies, M.D.Cantab., F.R.C.S.Eng., Assistant Surgeon, University College Hospital, etc. London: J. and A. Churchill. Fifteenth edition. Price 7s. 6d. net.

(*a*) "An Introduction to the Study of Organic Chemistry." By H. T. Clarke, D.Sc.Lond., F.I.C. With diagrams. London: Longman, Green and Co. 1914. Price 6s. 6d.

The following reductions are made for a series:—Whole Page, 13 insertions at £3 10s.; 26 at £3 3s.; 52 insertions at £3, and pro rata for smaller spaces.

Small announcements of Practices, Assistancies, Vacancies, Books, etc.—Seven lines or under (70 words), 4s. 6d. per insertion: 6d. per line beyond.

Reprints.—Reprints of articles appearing in this Journal can be had at a reduced rate, providing authors give notice to the publisher or printer before the type has been distributed. This should be done when returning proofs.

THE POLYCLINIC.

Our readers, together with all friends and supporters of the Medical Graduates' College and Polyclinic, Chenies Street, Gower Street, London, will learn with regret that its work came to an end last week. Owing to lack of support, capped by the absorbing interest naturally taken in the war, it has been found impossible to carry on the work of the institution. It is earnestly to be hoped that some means may be found in the future of perpetuating the memory of its illustrious founder, Sir Jonathan Hutchinson, by establishing some kind of post-graduate scheme, even though upon a smaller scale.

Dr. P. S. (N. Kent).—A stretcher bed of the kind indicated has lately been devised by Mr. W. Beechey for use on the battlefield. We understand that the cost is about three guineas, and that it weighs less than 20 lbs.

THE HOUSE SURGEON DIFFICULTY.

It is a fact that scores of hospitals and other medical institutions have for some time past in vain advertised for House Surgeons and Assistants. One well-known institution, for example—the Hulme Dispensary, Manchester—has been advertising in the medical journals for three months offering an increasing salary from £180 upwards, with furnished rooms, etc., with no success, yet in times of peace this post yielding excellent practice and a fair emolument would be eagerly sought for. Certainly, the war has benefited the profession indirectly.

Observer (Glasgow).—Your letter is held over on account of pressure on our space this week.

L.R.C.P., M.R.C.S. (London).—See reply to "Observer."

Meetings of the Societies, Lectures, &c.

Wednesday, October 28th.

Hunterian Society (Barbers' Hall, Monkwell Street, E.C.).—4,30 p.m.: Presidential Address:—Dr. T. G. Lyon: The Barber-Surgeons and the Medical Profession. (Illustrated by an exhibition of objects of interest belonging to the Worshipful Company of Barbers.)

Royal College of Surgeons of England (Lincoln's Inn Fields, W.C.: Museum Demonstrations for Advanced Students and Medical Practitioners. 5.30 p.m.: Mr. J. F. Colyer, Specimens of Dentoalveolar Abscess and Dental Cyst.

Friday, October 30th.

Royal College of Surgeons of England (Lincoln's Inn Fields, W.C.: Museum Demonstrations for Advanced Students and Medical Practitioners. 5 p.m.: Prof. A. Keith, Gunshot Injuries of the Thorax and Abdomen.

Tuesday, November 3rd.

Röntgen Society (at the Institution of Electrical Engineers).—8.15 p.m.: Presidential Address.

Vacancies.

Birmingham City Asylum, Rubery Hill, Birmingham.—Junior Assistant Medical Officer. Salary £200 per annum, with furnished apartments, board, laundry, etc. Applications to the Medical Superintendent.

Nottingham General Hospital.—Senior House Physician. Salary £120 per annum, with board, residence, and laundry in the hospital. Applications to the Secretary.

Hulme Dispensary, Dale Street, Stretford Road, Manchester.—House Surgeon, duly registered and fully qualified Salary £180 per annum. Annual increase £10 to £200, with apartments, attendance, coal, and gas. Applications, with testimonials, at once to Honorary Medical Secretary. (See advt.)

West Ham and Eastern General Hospital, Stratford, E.—Senior House Physician. Salary £120 per annum, with board, residence and washing. Applications to the Secretary.

County and City Asylum, Powick, near Worcester.—Junior Assistant Medical Officer. Salary £200 per annum, board, lodging, and washing. Applications to the Medical Superintendent as above.

Stroud General Hospital.—House Surgeon. Salary £120 per annum, with board, lodging, and washing. Applications to the Hon. Secretary, the Hospital, Stroud.

Appointments.

Dickie, J. K. Milne, M D.Edin., Clinical Tutor in the Edinburgh Royal Infirmary.

Graham, G. M., F R C.S.Edin., Surgeon to the Craigleith Hospital.

Johnstone, R. W., M.D.Edin., Clinical Tutor in the Edinburgh Royol Infirmory.

Madill, J. H., M.B., Ch.B.Edin., Clinical Assistant in the Edinburgh Royal Infirmary.

Mathewson, George D., M B.Edin., Clinical Assistant in the Edinburgh Royal Infirmary.

Rutherford, Andrew, M.B., Ch.B.Edin., Clinical Tutor in the Edinburgh Royal Infirmary.

Young, James, M.D.Edin., Clinical Tutor in the Edinburgh Royal Infirmary.

Births.

Ackroyd.—On October 20th, at Royston, Herts, the wife of Harold Ackroyd, M.D., of a son

Bottomley.—On October 23rd, at Kearsney, Westfield Avenue, Gosforth, Newcastle-on-Tyne, the wife of Dr. J. Frank Bottomley, of a son.

Dally.—On October 20th, 1914, at 19, Upper Wimpole Street, W., the wife of J. F. Halls Dally, M.D., M.R.C.P., of a daughter.

Fenton.—On October 24th at 60, Woodfield Road, Ealing, W., to Dr. and Mrs. H. Arthur Fenton, of a daughter.

Finigan.—On October 18th, at The Bridge House, Fordingbridge, the wife of Capt. D. O'C. Finigan, M.D., of a daughter.

Henderson.—On October 23rd, at Alwyns, Amersham, Bucks, the wife of Hal J. Henderson, M.B., B S.Lond., of a son.

Imrie.—On October 20th, at Queenstown, Cape Province, S.A., the wife of Dr. H. D. Macdonald Imrie, of a daughter.

Shipway.—On October 25th, at 61, Queen Anne Street, W., the wife of Francis E. Shipway, M.A., M.D.Cantab., of a daughter.

Marriages.

Challenor—Thomlinson.—On October 24th, quietly, on account of the war, at Christ Church, Moss Side, Manchester, Lionel T. Challenor, M.R.C.S., L.R.C.P., Lieutenant, R.A.M.C.T., eldest son of the Rev. John W. Challenor, Rector, C.T.F., Colonel, T.D., and of Mrs. E. M. Challenor, to Hilda Mary, daughter of Mr. and Mrs. Robert Thomlinson, of Manchester, and of Cabin Hill, Rhos-on-Sea, North Wales.

Collins—Merrick.—On October 21st, at St. Mary's, Barnes, Algernon Boniface Collins, M.R.C.S., L.R.C.P., of Hawthorne Lodge, Yapton, Sussex, to Marie Adéle, eldest daughter of Mr. and Mrs. William Gordon Merrick, of 12, Melville Road, Barnes, S.W.

Fazan—Helmsing.—On Tuesday, October 20th, at All Souls, Langham Place, Eric Alfred Charles Fazan, M.R.C.S., Captain 5th Royal Sussex, eldest son of Dr. C. H. Fazan, of Wadhurst, Sussex, to Alide Cattherine Helmsing, second daughter of John William Helmsing, of "St. Albans," The Park, Hull, very quietly on account of the war.

Keyworth—Parsons.—On October 23rd, in Bombay, Captain William David Keyworth, I.M.S., eldest son of Mr. and Mrs. Edwin Keyworth, of King's Lynn, Norfolk, to Mary Louisa, eldest daughter of Mr. and Mrs. John Parsons, of Riverdene, Richmond, Surrey. (By cable.)

Leapingwell—Fuller.—On October 24th, at Marylebone, Dr. Arthur Edward Leapingwell, eldest son of Colonel A H. Leapingwell, I.M.S, to Edith Elsie, younger daughter of C. E. Fuller, of Worthing.

MacNabb—Bywater.—On October 17th, at St. Cuthbert's Church, Edinburgh, H. H. MacNabb, M.D., of Manchester, to Annie Emily, second daughter of Mrs. Bywater, of Innescote, Roxburgh.

May—Stephens.—On October 21st, at the Parish Church, Portsmouth, Fleet-Surgeon P. M. May, R.N., to Evelyn Beryl, elder daughter of the Rev. Henry and Mrs. Stephens, Brentwood.

Deaths.

Custance.—On October 15th, while on active service, Gustavus William Musgrave, Surgeon, R.N., of H.M.S. "Hawke," youngest son of the Rev. G. M. and Mrs. Custance, Bognor

Haldane.—On October 18th, at Viewforth, Bridge of Allan, William Haldane, M.D., F.R.C.P.E., F.F.P.S.G., aged 67.

Kynaston.—On October 13th, at Dunstaith, Cromarty Firth, from pneumonia following typhoid fever, Albert Evelyn Fairfax Kynaston, M.R.C.S, L.R.C.P., R.N.R., aged 33, late of the Poplar and Stepney Sick Asylum.

McGill.—On October 20th, Colonel Harry Strickland McGill, Army Medical Service (retired), dearly-loved husband of Mary Rosina McGill, and only son of the late Captain William Strickland McGill, 79th Cameron Highlanders.

Milles.—On Thursday, October 22nd, W. Jennings-Milles, M.D., F.R.C.S., suddenly, of heart failure (while staying with his cousin, Col. G. F. Whitehead, at Woodalls, Rudgwick, Sussex)

Muir.—On October 22nd, Robert Douglas Muir, M.D., etc., eldest son of the late George W. Muir, R.N., Paymaster H.M.S "Asia" (Legion of Honour Crimea).

Ross.—On October 15th, in the North Sea, in H.M.S. "Hawke," Staff-Surgeon George Charles Cumberland Ross, R.N., the dearly-loved eldest son of Surgeon-Colonel G. C. Ross, late I.M.S.

Shine.—On October 22nd, at Galtee More, Barnsley, John Power Shine, M.B., Ch.B., R.U.I., aged 45. R.I.P.

Simpson.—On Thursday, October 22nd, at 11, Horton Crescent, Rugby, James Herbert Simpson, M.D., aged 64.

HULME DISPENSARY.

DALE STREET, STRETFORD ROAD, MANCHESTER.

WANTED, a HOUSE SURGEON duly registered and fully qualified. Salary £180 per annum. Annual increase £10 to £200, with apartments, coal and gas. Applications, with testimonials, at once to Honorary Medical Secretary.

THE MEDICAL PRESS AND CIRCULAR.

"SALUS POPULI SUPREMA LEX"

VOL. CXLIX. WEDNESDAY, NOVEMBER 4, 1914. No. 19.

NOTES AND COMMENTS.

Edinburgh University and the War. THE half-yearly report of the Business Committee of Edinburgh University contains an interesting statement as to the effect of the great war upon the students. No fewer than twelve members of the staff—lecturers and assistants—are serving with His Majesty's Forces. Of matriculated students there are 700 less than at the corresponding date of last year, and of that number it may safely be assumed nearly all are serving with the naval or military forces of the Crown. It is known that between 300 and 400 of the members—past and present—of the University Contingent of the Officers' Training Corps have received commissions. Many graduates of the University are also under arms, but it is impossible in the meantime to arrive at any accurate estimate of their number. This decrease of students, of course, entails a large monetary loss to the University, but, on the other hand, the Alma Mater has the proud satisfaction of knowing that her sons will worthily maintain her ancient reputation for patriotism. The Committee express a hope that the University Court will arrange to have published in due season a Roll of Honour of those engaged in the war.

The Advice of Cambridge. AT Cambridge the falling off in the number of medical students amounts to nearly fifty per cent. The precise figures as regards entries are 64 in comparison to 116 last year, 110 in 1912, and 114 in 1911. One college specially favoured by medical students had 32 entered on its roll, but of these 17 only have come into residence. Cambridge is one of the small schools, so that the shortage is all the more conspicuous. It seems somewhat undesirable that students should interrupt the course of their studies in order to act in a subordinate capacity of dressers at the war, unless, indeed, the absolute necessity of such service is established. There could hardly be a more unsettling episode in a young man than that of an arduous campaign, in which he can hardly expect to add to his professional experience anything likely to be of service in his future professional life. Operative surgery for the most part falls to his seniors, and work of that kind is of comparatively little value in private civilian practice. It is not likely that more than a small proportion of the medical men now on active service at home and abroad will be retained permanently in the Military and Naval Medical Service. On the whole, then, medical students will be well advised to consider the whole facts of the case before they volunteer for service—that is to say, under present circumstances. Should the War Office find the help of medical students necessary to the proper care of wounded British soldiers, at home and abroad, then by all means let our students obey the call of duty and sustain the traditions of the profession to which they are attached. It is well to speak out in such a matter, and many of our readers will endorse the view advanced by the *Cambridge Review*, of October 28th, which says:—"All students who have advanced any way in their medical careers are strongly advised to adopt the harder task of staying at home and getting qualified. That it is the harder path there can be no doubt: and we shall be glad when busy-bodies cease to speak as though anyone's, especially a medical's, presence in Cambridge this year means shirking."

Serbia's Offer to Medical Men. As a small nation that has bravely sustained the cause of the Allies, Serbia deserves the gratitude of the British nation. It has been known for some time that her Army Medical Service is altogether inadequate to meet the needs of the situation and that in consequence the brave Serbian soldiers have had to undergo a vast amount of unnecessary suffering and death from wounds and disease. The Serbian Red Cross is sadly hampered for lack of funds, in spite of the humane efforts of Lady Paget and those interested in the country. It has been announced again and again that surgeons are wanted urgently by Serbia, but inquiry has shown that it is proposed to pay travelling and living expenses only, the services of the medical men being purely honorary. With the present shortage of medical men in the United Kingdom it is unlikely that more than a few volunteers will respond to the invitation, especially as the conditions of warfare in Serbia are more than usually arduous. The British Army Medical Department pays twenty-four shillings a day and all expenses to medical men who have, many of them, only recently obtained their qualifications. Serbia, therefore, or any other nation or organisation wanting English doctors must be prepared to outbid that sum for young and inexperienced men, and still more for the infinitely more valuable services of older men of special experience. Recognising these conditions it is interesting to note that Serbia has asked for a certain number of bacteriologists and physicians experienced in epidemic diseases. The salary offered to these highly-skilled men is 600 francs per month (with expenses)—that is to say, actually less than is offered in England to the youth who has just managed to scrape through his examinations with a standard lowered for war purposes. Under these circumstances it is to be feared that Serbia will have some difficulty in engaging volunteers in our own country. Serbia is a poor country, but it would be a wise economy to spend the twenty or thirty thousand pounds required to pay adequate fees to competent physicians.

A Bogus Practitioner. THE public scandal of bogus medical practice has been once again illustrated by a case at Sheffield. A fine of £20 or two months' imprisonment was last week imposed by the local magistrates on Robert Reginald Stanley Renton, aged 32, formerly of Cemetery Road, Sheffield, and now a sergeant in the Bedfordshire Light Infantry, who pleaded guilty to practising as a physician and surgeon without qualification. Defendant had lived in Sheffield with a woman named Fotheringham, who died suddenly, and was the subject of an inquest. The police then found on the door of the house a plate inscribed "R. Renton, B.A., M.B., L.M., Physician and Surgeon," and another plate, "R. Renton, Dental Surgery Branch." As a matter of fact, he was neither registered nor qualified as physician, surgeon, or dentist. The police also found by inquiry that in 1909 defendant married a woman who was now living at Malton, and that he then gave the name of Robert Reginald Stanley Renton Dilke Wing, B.A., M.B., and had practised as a physician in Moss Lane, Liverpool. Defendant declared he had not absconded, but had joined his old regiment, being desirous of going to the front. He had, he said, been in the Chitral and South African campaigns, for which he held medals.

The General Medical Council and Bogus Practice. WHAT can be said of the system that permits unblushing frauds of this kind to be perpetrated at the expense of the public? It is the duty of the General Medical Council to maintain the *Register* and to see that the names of none but duly qualified and registered practitioners are entered thereon. So far as that limited field of activity is concerned, their mission is fulfilled with zeal and proficiency. But a case like Renton's shows that a great deal more is wanted for the protection of the public against the bogus practitioner of medicine. The General Medical Council disclaims any obligation to detect or expose offenders of that kind, and there the matter rests, except when the medical defence associations prosecute or induce the police to take action. A simple and much-needed extension of the duties of the General Medical Council would give it powers of disciplinary supervision over all persons laying claim to or using medical titles or undertaking medical practice. By rendering it a punishable offence to omit instant registration of names, addresses and qualifications to practice on the part of all such persons, the Council would at once have a powerful hold over unqualified medical practice. It can hardly be that the Council is satisfied with its present perfunctory and dilettante essays in maintaining a *Register* that is a mere laughing stock to quacks and false practitioners. Why should not the police keep an official report of all persons displaying a notice or otherwise notifying their readiness to give medical service? Why, again, should not the police co-operate with the General Medical Council in such matters?

The Medical Roll of Honour. THE death-toll among officers of the Royal Army Medical Corps during the last week is, we regret to record, considerable. Among the killed in action are Lieut. G. H. Chisnall, R.A.M.C.; Capt. M. J. Lochrin, R.A.M.C.; Capt. R. H. Nolan, R.A.M.C.; Capt. R. D. O'Connor, R.A.M.C.; Lieut. R. E. Porter, R.A.M.C.; Lieut. H. J. Sladen Shields, R.A.M.C.; and Lieut. Douglas Wardleworth, R.A.M.C. The death of Mr. S. N. Crowther, M.R.C.S., L.R.C.P., while acting as a motor-cycle despatch rider, is also reported. Officers reported wounded: Lieut. H. de C. Dillon, R.A.M.C.; and Lieut. J. R. Hayman, R.A.M.C. Capt. R. V. Dobey, R.A.M.C., is reported as missing.

LEADING ARTICLES.

THE TRIUMPH OF TEMPERANCE.

THE great war at present raging on the Continent of Europe will undoubtedly influence more or less profoundly the future destinies, not only of the combatant nations, but of nations in other parts of the globe. The economic issues at stake are stupendous in their magnitude, and these alone must in the long run determine many social problems. In the history of a people it is a sound proposition that the power of the purse is greater than that of the sword. There are other important contributory factors, however, in national supremacy, applying that term to the conquests of peace as well as to the dominion that is maintained by a policy of blood and iron. One of the immediate results of the war, for instance, has been a general impulse to the cause of alcoholic temperance. Early in its course the appeal by Lord Kitchener to the British nation for recruits to form a new army insisted upon the necessity of avoiding stimulants in order to keep physically strong and capable. As a matter of fact, the majority of the soldiers of the new army abstain from alcohol, a self-denying ordinance which is also generally adopted by the army on active service. This salutary reform is reflected in various parts of the kingdom by the adoption of further restrictions upon the sale of liquor, notably in the curtailment of hours of sale. In the metropolis, for example, public-houses are closed nightly at ten o'clock, and it is seriously mooted that they should not be opened before ten o'clock next morning. The social effects of the early closing have been remarkable. It seems likely that the late hours into which city populations have gradually drifted are more or less closely related to the legal hours of business imposed by the legislature on publicans. Another significant fact is that similar restrictions have been imposed upon the sale of alcoholic beverages in clubs, whereby the thin end of the wedge of another social reform has been introduced. Looking abroad we find no less striking changes adopted by two nations that have not hitherto shown any leaning towards temperance. The prohibition of the sale of vodka in Russia signalises a startling transformation of national habit. Hardly less significant is the issue by the German Emperor of an order forbidding the use of alcohol by his army. Germany probably consumes more alcohol per head of the community than any other nation in Europe. Her conduct of the present war has been characterised by excesses of a brutal kind, and many of them, it is to be feared, have been conceived or committed under the influence of alcohol. A general survey of the position reveals the encouraging fact that the nations of Europe are enforcing the discipline of temperance upon their soldiers. In the light of past experience it will be well to utter a word of caution to temperance enthusiasts in our midst. If in their zeal the reformers advocate extreme measures they are likely to defeat their own object. "Everything comes to him who waits" is a sound generalisation, but one that is not recognised at its full value by would-be reformers. This train of thought is suggested by the action of a London magistrate, who last week seriously entertained the proposition that during the war public-houses should be closed against women. That there has been a recent increase of drinking amongst that sex seems not improbable if we realise the fact that alcohol affords to persons of certain temperaments, more especially, perhaps, to those of limited intellectual resources, a means of assuaging mental grief and anxiety such as that experienced by women whose menfolk have left their homes to face the perils and privations of war. To adopt a sex disqualification of the kind suggested would in the present state of public opinion upon sex legislation be extremely unwise. It would involve, moreover, a complete misconception of the meaning of temperance progress, which, in our opinion, has arisen from a better understanding of the laws of healthy life, and is due to collective action on the part of an enlightened public rather than that of the legislature. If women as a class are bent upon drinking more alcohol during the war than they consume in times of peace it is hardly likely that their exclusion from public houses will thwart them. In a broad sense the curtailment of opportunity by limiting the use of licensed premises will bring about a certain reduction in the consumption of alcohol. The diminution, however, will be amongst those that drink habitually more than is good for them rather than amongst the moderate drinkers. In the long run the man in the street will determine the nature of the restrictions to be placed upon the liquor trade. If that fundamental principle of government by consent be accepted, it follows that we must look for future progress in temperance to the general standard of education and enlightenment rather than to legislation, which experience has shown to be a broken reed in the matter of not a few social reforms.

THE SOLDIER'S HEART.

Among the consequences of prolonged physical exertion few are so remarkable as the peculiar disorder of cardiac action known as "irritable heart." The special phenomenon of irritability, as affecting the heart, is seen in individuals who have suffered from over-exertion or upon whose cardiac functional capacity some great demand has been made. Generally speaking, the symptoms are those of cardiac overstrain—namely, giddiness and palpitation, associated with a rapid, often tumultuous, action of the heart. Such a condition has been termed the "soldier's heart," because it is not infrequently observed in men who are discharged as unfit for active service. In former times the weighty and ill-adjusted accoutrements of the soldier in the field were responsible for much needless strain. The findings of the Pack Commission and an increased knowledge of applied physiology led to the introduction of a more hygienic equipment, so that, at the present day, the element of weight can be neglected as a contributory factor in the production of soldier's heart. Former pathologists were fond of demonstrating the existence of a white spot, known as "the soldier's spot," upon the external surface of the heart due to friction, with which there was generally some degree of cardiac hypertrophy. Though the subject was referred to by Deputy Inspector-General Maclean, M.D., in 1867, when reviewing the causes of admission into the Netley Hospital, it was Dr. J. M. Da Costa, of Philadelphia, (*a*) who first called attention to the condition and gave it the name of "irritable heart." In a critical study of some three hundred cases observed among soldiers subsequent to the Peninsular Campaign, Dr. Da Costa analysed all the symptoms and physical signs of this disorder, which is of special interest at the present moment. It may be noted that murmurs obscuring or replacing the cardiac sounds are comparatively seldom met with. Even after grave derangement of the heart's action recovery is possible, and in several cases men have been able to rejoin the ranks after undergoing a period of rest and treatment in hospital. A point of considerable practical importance is that when once the heart has become irritable from excitement and over-exertion disordered innervation will tend to keep up the condition and put back recovery. If intemperance has been an additional contributory factor the prognosis must also be considered as doubtful. Recent advances in cardiology go to show that many instances of over-strain of the heart are due to the sudden inception of auricular fibrillation or other abnormal action. It is probable, however, that some affection of the myocardium has existed in many of the cases and the increased exertion, as Dr. James Mackenzie has pointed out, has merely served as a stimulating factor in the production of an abnormal rhythm in an already diseased heart. Every medical examiner of recruits can bear testimony to the frequency with which functional or organic heart affections serve as causes of rejection. In the course of an address on the "Soldiers' Heart," delivered the other day at the Institute of Hygiene, Dr. Strickland Goodall remarked that cardiac disease was the cause of the greatest number of breakdowns among soldiers during their first three months of training, while in forced marches a certain number of men always fell out from heart

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(*a*) *Amer. Journ. Med. Sci*, 1871.

failure. The effect of rest in the horizontal position in reducing the palpitation and ameliorating other symptoms is sometimes little short of miraculous, but in most cases the exhibition of some cardiac tonic, followed later by baths and regulated movements, will be necessary to restore a healthy action in an organ that has not become seriously diseased.

CURRENT TOPICS.

Démodé.

A terrible rumour has reached our contemporary *The Hospital*, last week's number of which states that the vogue of the operation is declining. Such news must shake our daily life to its foundations, although it certainly postulates increased freedom from disturbance for some of our fellow-men. To think that the illimitable incursions of our scalpelular alteratives are in any way affected by such a thing as fashion is bad enough. Yet the bearers of the bistouries almost admitted that themselves when they began to undo last season's gastroenterostomies. But it is the idea that the number of operations is declining that gives us pause. The war, of course, is blamed. But we can hardly claim that the class of man serving or about to serve at the front is that from which our surgeons drew their *clientèle*. Nor is the decrease likely to be due to economy. The swift, sure diagnosis of the expert abdominalist allows of little reflection on the part of himself or of others. Nothing must stand between him and the peccant appendix. Financial difficulties are not allowed to check him more than do the superficial structures of the abdominal wall. The surgeon is like a revolver—people hope they won't want him, but when he is needed the need is imperative. Like a tram-car, he must have his way. We all know that there is a type of hypochondriac who is never so happy as when in a *dolce far niente* of ether anæsthesia and exploratory laparotomy, but her numbers are negligible. And it cannot be that there are not enough surgeons. No, we fear it is true that operation sometimes becomes a fashion. " When in doubt, look and see," is a very plausible precept, but perhaps we have had too much of it. Of course, there is always a certain amount of more or less decorative surgery that can be easily postponed in times of crisis, but, all the same, we are inclined to agree that surgery, like other things in the world, is subject to fashion, and that the heretofore obsessed operator is to-day somewhat staying his scalpel.

Antiseptic Inhalations.

The idea of combating certain specific infections by means of antiseptic inhalations is by no means new. Many disinfectants, such as creosote, have been successfully employed in this manner, not only for removing the fœtor of such conditions as bronchiectasis and chronic phthisis, but also for attacking the organisms responsible for them, as it were, *in situ*. Inhalers, to be of any practical use, must be worn persistently day and night except when actually taking food. An interesting series of experiments has been carried out by Messrs. C. T. Kingzett, F.I.C., F.C.S., and R. C. Woodcock, F.I.C., F.C.S., with regard to the destructive effect of certain disinfectants upon cultures of typhoid bacilli. In the *Journal of Clinical Research* these observers describe the effects of placing strips of filter paper carrying the germ cultures at the top of a closed tin, beneath which were placed layers of cotton wool impregnated with sanitas oil, Russian turpentine and eucalyptus oil. In another set of experiments air was drawn by means of a water pump through flasks containing a small quantity of the medicaments mentioned above and then through a U-tube containing strips of paper moistened with a broth culture of the several germs. When respirators and inhalers are employed the difficulty is always to get the patient to use them continuously. Moreover, the nature of the disinfectant with which the inhaler is charged makes a considerable difference, not only to the patient's comfort, but also in respect of the length of time necessary to destroy pathogenic organisms, if, indeed, such can be killed by inhalations alone. The experiments undertaken above appear to show the superiority of sanitas oil over creosote, carbolic acid and tincture of iodine, all powerful disinfectants. If similar good results can be obtained clinically, a further stimulus may be given to the method of treating pulmonary diseases by continuous antiseptic inhalations.

The Dum-Dum Allegation.

It is one of the commonplaces of war for one side to accuse the other of breaking all the rules, and we must allow for it. The talk about dum-dum or expanding bullets is an example. Early in the war each side accused the other of breach of international law in this respect and produced instances in support of its case. The modern high velocity bullet is usually made of a hard metal casing filled with some softer material such as lead. If the end of the nickel casing be cut off the lead flows out when the bullet strikes its mark and " mushrooms " causing a severer and more ragged wound than that made by an unaltered bullet. A bullet so treated is called a "dum-dum," and it is these that are said to have been used. The diagnosis is made either by observing the resultant wound or the extracted bullet or both. It is liable to error. The modern bullet only acts as we expect it to act—that is, by punching a clean hole—at a medium range. At two points in its career, immediately after leaving the rifle and again when its velocity is diminishing, it wobbles. The first time is before settling down to its steady spin, and the second when it is losing its initial speed. A hit at either of those ranges will not be clean, as the bullet is flying more or less sideways. Again, when a high velocity bullet strikes an organ filled with fluid, like the bladder, or semi-fluid, like the skull, it causes a burst. The effect on the organ is as if an explosion had taken place within it. Similarly when a hard bone is struck it may be shattered to fragments, each of which becomes a projectile in its turn. The nickel covering of the bullet may be torn by a bone and the lead may flow out, so giving rise to the impression that dum-dums were used. All these facts have been long known, but will bear restatement. The only real evidence of the use of expanding bullets is the finding them undischarged. So far we are glad to say we have not heard of any such discovery.

The After-Histories of Consumptives.

An interesting report upon the after-histories of patients discharged from the Brompton Hospital Sanatorium at Frimley, in Surrey, during the years 1905-1910 has been compiled by Drs. S. H. Habershon, F. J. Wethered, P. Horton-Smith Hartley, J. J. Perkins and W. O. Meek (Medical Superintendent). The great majority of the patients in the Sanatorium have first passed through the wards of the Brompton Hospital, whence, if found suitable after a period of observation, they have been drafted on to Frimley. Each patient undergoes a course of graduated exercises and labour, and on its completion he should be in a condition to return to work, if all goes well. The report is based upon a consideration of the after-history of 1674 cases, out of whom tubercle bacilli were found in 1176. The remainder, numbering 498, either had no sputum, or else no bacilli could be found. A further sub-division was made into "Full Time" and "Short Time" cases, the former numbering 1507 and the latter 167. Among the numerous tables in the report the most instructive are those which deal with the after-histories of all "full-time" cases of pulmonary tuberculosis which could be traced for a period of (*a*) five years and (*b*) four years subsequent to discharge. From a study of these it is seen that of 690 patients, 55.9 per cent. were well and able to work at the end of the fourth year following that in which they were discharged; or 44.5 per cent. if only those are taken in whose sputum tubercle bacilli could be found. At the end of the fifth year (of 292 patients) the corresponding figures were 48.4 and 38.8 respectively. Seeing that the cases are carefully selected for treatment at the sanatorium, it was hoped that a larger percentage would have retained their health, but it must be remembered that in many cases patients have been compelled to return to unsatisfactory home conditions and insufficient food, with consequent relapse. The best results from sanatorium treatment can only be obtained by an intelligent following up of the cases after their discharge. Another point is brought out by the statistics—namely, that lasting benefit is more likely to accrue when the patient comes under treatment in an early stage of the disease.

PERSONAL.

Dr. Richard Whittington has been elected a member of the Brighton Town Council.

Mr. John Henry Wood, M.B., M.R.C.S., of The Willows, Tarrington, Hereford, left estate valued at £19,283.

Prof. C. S. Sherrington, F.R.S., has been elected to a professional seat upon the Hebdomadal Council of the University of Oxford.

Dr. Walter Hill has been appointed Medical Officer to the Sportsmen's Battalion, the base hospital of which is at Chertsey, Surrey.

Dr. John Gordon-Munn, proprietor of the Heigham Hall Asylum, has consented to serve as Lord Mayor of Norwich for the ensuing year.

Dr. W. Maule Smith, M.D., M.R.C.P.Edin., has been appointed Medical Superintendent to the West Bromwich and Walsall Joint Unions.

Dr. Louis Macpherson, M.D.Edin., has been appointed Tuberculosis Officer for the counties of Mid- and West Lothian and Peebleshire.

Dr. Robert A. MacLaverty has been elected Master of the Coombe Hospital, Dublin, in succession to Dr. M. A. Gibson, whose term of office expires in December.

Dr. J. A. Manton, for thirteen years a member of the Sheffield City Council, has been installed as W.M. of the St. Leonard Lodge, No. 2,263, at Sheffield.

Mr. W. Fedde Fedden, F.R.C.S., the Senior Assistant Surgeon, has been elected a Surgeon, and Mr. George A. Ewart, F.R.C.S., an Assistant Surgeon, to St. George's Hospital.

Mr. A. William Sheen, M.S., F.R.C.S., has generously offered to endow the Alfred Sheen prize of the value of £3 annually in the Medical School of University College, Cardiff, by presenting to the School a sum of one hundred pounds.

Dr. H. A. Watney has succeeded Dr. Trevor Fowler as Medical Officer of Health of Epping, the latter having resigned the office owing to failing health after a tenure of nearly forty years.

Dr. Joseph F. O'Carroll, F.R.C.P.I., has been appointed Professor of Medicine in the National University of Ireland (University College, Dublin), in succession to the late Sir Christopher Nixon.

Miss Nora Smith, M.B., B.S.Lond., D.P.H., at present Assistant School Medical Officer, Nottingham, has been appointed Assistant Medical Officer of Health and Assistant School Medical Officer at Eastbourne.

Dr. Sidney Davies, Medical Officer of Health for the Borough of Woolwich, returned home on Friday week last, after nearly three months' internment in Germany, where, with his wife and daughter, he was on holiday when the war broke out.

We regret to announce that Mr. Sidney Nelson Crowther, M.R.C.S., L.R.C.P., a motor-cycle dispatch rider, was killed in action on October 18th, aged 39. He was Senior Medical Officer of Surrey County Asylum, Netherene, and formerly Assistant Medical Officer at Brookwood Asylum and Senior House Physician at Westminster Hospital.

Sir Watson Cheyne, Bart., F.R.S., President of the Royal College of Surgeons of England, will open a discussion at the Medical Society of London on November 16th, at 8.30 p.m., on "Surgical Experiences of the Present War." Owing to his absence on active service, Mr. E. E. Austen will be unable to read the paper previously announced for November 9th.

The next meeting of the Oxford Ophthalmological Congress will be held at Keble College, Oxford, on July 15th and 16th, 1915. The discussion upon that occasion will deal with industrial diseases and accidents. Mr. Sydney Stephenson has been appointed Master of the Congress, *vice* Mr. R. W. Doyne, nominated as Past-Master. Mr. P. H. Adams (Oxford) has been appointed Deputy-Master and Mr. Bernard Cridland (Wolverhampton) Honorary Secretary.

CLINICAL LECTURE

ON

A CASE OF PERNICIOUS ANÆMIA.

By H. L. McKISACK, M.D., M.R.C.P.Lond.,

Physician to the Royal Victoria Hospital, Belfast.

THE case we have before us is one of which the most prominent symptom is severe anæmia. She is a married woman, about 40 years old, who has had several children and no miscarriages. For the past two or three years she has felt rather weaker than previously, being easily tired and hardly equal to the ordinary household duties which, as the wife of a working man, she has to carry out. She comes of a fairly healthy family, in which there has been no particular tendency to anæmia. For the past few months she has been getting steadily weaker, and at times her feet, ankles and face have become swollen. She has noticed her abdomen distended of late, but has had no pain. She came into hospital a few days ago, in a somewhat delirious state, being at times quite rational, and at others noisy and rambling in her conversation; her temperature was 100°, and she was extremely weak.

The present state of the patient is in striking contrast to that of a healthy person. You will notice the curious colour; not merely paleness, but the light yellow, almost greenish shade of the face, limbs, and to a less extent, of the body. The paleness, however, is very remarkable, the palate, tongue, gums and lips being a yellowish white colour. There is a moderate amount of œdema, best seen below the eyelids, and in a slight degree in the legs, hands and back. The hair is dry, harsh and thinned. The patient's attitude is that of listlessness. She is somewhat irritable, and dislikes to be interfered with. Her temperature chart shows a moderate pyrexia with daily remissions. The pulse is frequent, of low tension, but fairly regular. The heart is dilated to a moderate extent, and is rather feeble in its contractions. There are systolic murmurs to be heard in the front of the chest, namely: near the apex of the heart; at the base, loudest to the left of the sternum; and near the inner end of the clavicles, particularly the right, and just above them. The abdomen is enlarged, mainly owing to gaseous distension of the bowels, but also from enlargement of the spleen and liver. There are several carious teeth, the gums are inflamed, and some pustules are to be found on the skin. The urine is of a low specific gravity (1008 to 1012) and is free from albumin.

The blood examination gives the following results:—There is a great diminution in the number of red cells, which are misshapen, and show great varieties both in size and shape. They only number about 1,300,000 per c.mm. A few nucleated red cells of normal size are to be found, but repeated and careful search has failed to discover any large-sized nucleated red cells (megaloblasts). The hæmoglobin is defective, not however, to such an extent as the number of red corpuscles. The hæmoglobin is about 34 per cent. of the normal amount, while the red cells may be taken as 26 per cent. of the five millions per c.mm., which should be present normally. This means a poor blood, relatively rich in hæmoglobin. In order to record in figures the relation of hæmoglobin to red cells, we estimate the ratio of their relative percentages; that is to say, the percentage of red corpuscles present in the patient's blood as compared with that in a normal blood, and the percentage of hæmoglobin present, also as compared with normal blood. An equality in the percentages is described as a colour index of 1. Should the hæmoglobin be in greater proportion than the red cells, as is found in the present case, the colour index exceeds unity. In this instance the colour index is $\frac{34}{26} = 1.3$. It is found that a high colour index, that is one equal to, or exceeding unity, is characteristic of pernicious anæmia. Most secondary anæmias, on the other hand, have a colour index considerably under 1. The white cells in this case are diminished in number, but otherwise show no very definite departure from those found in a normal case. The above detailed characters of the blood, and the other symptoms of disease, leave no doubt that the case is one of pernicious anæmia.

The cause of the severe form of anæmia from which this patient suffers must be of the greatest interest and importance. It is in many cases quite impossible to assign a satisfactory origin to the complaint, but it has been observed in many such cases that there has been an obvious focus of infection. Instances have been observed where pernicious anæmia has followed septic infection from the alimentary tract. A patient, for example, some years ago, in the Royal Victoria Hospital, died after a prolonged illness in which there was considerable fever, and in which the blood became eventually typical of pernicious anæmia. A sloughing fibrous tumour was found in the bowel. A case under my charge a few years ago illustrated the group of cases supposed to be due to oral sepsis. A gentleman who had for years suffered from pyorrhœa alveolaris became anæmic. His liver and spleen were enlarged, and before his death his blood was typically that of pernicious anæmia. From his blood, his urine, and his gums, a streptococcus was grown, from which a vaccine was prepared and administered without benefit.

In the present case the teeth are carious, the gums unhealthy, and some pustules are present. While one should not over-estimate the pathological importance of the wide-spread and almost universally defective condition of the teeth and gums, one must recognise that here under our very eyes an entry has been formed for the admission of microbes or their toxic products into the tissues. It has been shown that in a certain proportion of cases of septic absorption, pernicious anæmia has ensued, and to this extent one may accept the septic theory of its causation.

There are other occurrences of the disease which do not seem to have this origin, for example, those which have been attributed to repeated or even trivial hæmorrhages, or to exhausting conditions, such as too frequent pregnancies, insufficient or unsuitable food, syphilis, cancer. There is one anæmic condition which is not a progressive anæmia, in the sense that it may disappear when the cause is removed, namely, the severe anæmia due to certain intestinal parasites (ankylostoma duodenale, bothriocephalus latus, and rarely oxyuris and ascaris). The blood examination and the general state of the patient are indistinguishable from true pernicious anæmia. There still remain a number of cases which cannot with certainty be attributed to any recognisable source, and all we can say of them is that the symptoms are due to a disturbance of function of the blood-forming tissues, as shown by the presence of altered blood cells and hyperplasia of the lymphoid marrow. The disease is usually spoken of as a primary anæmia, since the origin of the disturbed hæmogenetic function is so often unknown. This, however, is certainly not the case in those instances of the disease due to septic absorption, where we are no more justified in using the term "primary" than we would be in calling pneumonia a primary disease of the lungs. Still less is it justified in those cases of anæmia produced by intestinal parasites, where the blood picture is practically identical with pernicious anæmia, but which tend to recovery when the parasite is removed.

There is, in fact, much reason to doubt if we are entitled to look on the condition as a distinct disease, for the symptoms may be produced by such a variety of causes. Ewing, however, disregards this want of consistency in the causation, and maintains that the typical blood picture, together with some hyperplasia of the lymphoid marrow, are sufficient to justify one in describing the condition as progressive pernicious anæmia, no matter whether the origin of the disturbed condition of the blood and marrow is known or not.

One of the most characteristic features of this complaint is the fluctuating nature of its course, either in consequence of, or independent of the treatment which the case receives. For a time the patient improves, and an examination of the blood may show that it is approaching the condition of health. Sooner or later, however, the disease recurs, often with considerable rapidity, and in a few weeks, after being apparently well, the patient reaches an extreme degree of anæmia. In some cases no improvement takes place, and the disease pursues a persistently unfavourable course. The ultimate result is almost without exception fatal, and death is caused by heart failure, progressive weakness, or some intercurrent disease.

The treatment consists in maintaining the nourishment to the highest possible point, in avoidance of over-exertion, in improvement of the hygienic conditions of the patient in every way. Arsenic has been shown to be the most useful drug; it may be given by the mouth in any of the suitable preparations; by the rectum or hypodermically in the form of cacodylate of sodium; or intravenously as salvarsan.

The chief drawback to active or prolonged treatment by any form of arsenic is the possible production of multiple neuritis. It may produce a very serious amount of paralysis. In addition, arsenic may give rise to considerable disturbances of the digestive organs, which in this class of case is specially unfortunate, and it may also cause the deposition of pigment in the skin, giving rise to a brown discoloration of the surface.

In some cases iron has proved of use, but is generally inferior to arsenic in its results. Any focus of septic absorption must be removed if possible. Occasional benefit has been derived from the use of a vaccine, obtained from the inflammatory process, which has presumably caused septic absorption. Lastly, as regards food, there is no special article of diet indicated. A liberal diet of the most nourishing kind available should be arranged for. Beef, mutton, bacon, ham, and fat-forming foods, generally, are suitable. Raw meat, or raw beef made into sandwiches, bone marrow, which can if necessary be administered in capsules, butter, milk and eggs should be given in as large quantities as possible, close attention being given to the digestive functions.

NOTE.—*A Clinical Lecture by a well-known teacher appears in each number of this Journal. The lecture for next week will be by G. Norman Meachen, M.D., B.S., M.R.C.P.Lond. and Edin., Physician to the Hospital for Diseases of the Skin, Blackfriars; Dermatologist to the Prince of Wales' General Hospital. Subject: "Recent Methods in Dermatology."*

ORIGINAL PAPERS.

BACTERIAL MUTATIONS: SOME RECENT OBSERVATIONS AND SUGGESTIONS AS TO THEIR EFFECT ON CURRENT MEDICAL THEORIES. (a)

By C. D. MAYNARD, F.R.C.S.E.
S. Africa Institute for Medical Research.

(*Concluded from page* 448.)

THERE is, however, another group of organisms on which a great deal of interesting work has recently been done. This is the streptococcus group, and foremost among the workers on this group is Rosenow. It will only be necessary for me to quote a few sentences from his most recent publication for those of you unacquainted with it to gather the main conclusions arrived at. Writing in the *Journal of Infectious Diseases*, Vol. 14, January, 1914, he says:—"Many authors have noticed changes in fermentative, morphological, and other properties of members of the streptococcus group. Davies concludes that the transformation of one member into another within certain limits appears to be not an uncommon phenomenon." The transformation of atypical into typical pneumococci has been demonstrated by Buerger and Rittenburg. An encapsulated streptococcus from "septic sore throat" can be converted into Str. mucosus on the one hand, and into hæmolytic streptococcus on the other. This has been demonstrated by Davies, Rosenow, and others. In connection with the transformation of pneumococci into streptococci or *vice versa*, he writes:—"The transformation of some of the strains has been found to be complete by every test known. Thus the morphology, the presence of capsule, the fermentative powers, the solubility or insolubility in bile or NaCl solution, the behaviour towards the respective broth culture filtrates (Marmorek's test), the specific immunity response, as manifest by the production of opsonin and agglutination by anti-pneumococcus and anti-streptococcus serum, and the more or less specific pathogenic powers have been studied. Strains that correspond to hæmolytic streptococci have been converted into typical pneumococci as determined by all the above tests and *vice versa*.

(a) Read before the Public Health Section of the South African Medical Congress, August, 1914.

"The changes observed have frequently the characteristics of true mutations because they appear suddenly, under conditions more or less obscure, and because the newly acquired properties persist unless the organisms are again placed under special conditions. The bearing these results have on bacteriology, epidemiology, and medicine might be discussed at length: only the following point will be mentioned: the fact that variations in oxygen tensions and salt concentration, that growth in symbioses with other bacteria, and that injections into cavities in animals call forth mutational forms in steptococci, suggest strongly that similar changes might occur in various foci of infection where such conditions may prevail. It would seem, therefore, that focal infections are no longer to be looked upon merely as a place of entrance of bacteria, but as a place where conditions are favourable for them to acquire the properties which give them a wide range of affinities for various structures."

He has shown that we may write the names,

Hæmolytic Streptococcus,
Streptococcus viridans,
Streptococcus of rheumatism,
Pneumococcus,
Streptococcus mucosus,

in a circle, and may by starting at any one of these, and travelling either way, convert it into any other by passing it through the intermediate stages.

D. P. Eisenberg has recently written a paper entitled "An Investigation into the Variability of Micro-Organisms" (*Centralblatt*, May, 1914). The organisms he deals with are B. prodigiosus, B. violaceus, and some pathogenic bacteria. He points out that there is a much greater variability in bacteria than in other organisms, and that very great changes in their characters can be observed in comparatively short periods. These changes may be temporary or permanent. The first may be termed modifications, and the latter mutations. Further, he remarks that in consequence of the rapid succession of individuals it is probable that there are a greater number of "susceptible periods," which result in the greater possibility for bacterial variations.

A short reference must be made to the diphtheroid group of organisms. P. N. Cave, writing in the *Journal of Bacteriology and Pathiology*, of April, 1912, expresses the opinion that the diphtheria bacillus may be converted into the Hoffman's bacillus, and subsequently into a micrococcus in the throats of patients. Theile and Embleton, in a paper appearing in the *Journal of State Medicine* for May, 1914, write:—"We have been able to convert the Hoffman's bacillus into a bacillus morphologically indistinguishable from the diphtheria bacillus and capable of secreting an exotoxin, which can be neutralised by diphtheria antitoxin."

Before leaving this section of the subject, I may perhaps be allowed to narrate one or two observations in this connection which have come to my notice. In the routine laboratory of the Institute for Medical Research two stock cultures of micrococcus melitensis were kept for purposes of agglutination tests. Recently, however, it was observed that the organism had lost its ordinary appearance, and had become morphologically a bacillus. The observer, thinking that this culture might have become contaminated, examined the second culture, with a like result. These cultures were plated, but no colonies of the typical micrococcus were observed. About a year ago a subculture from one of these growths had been sent to another laboratory, and at that time it was morphologically true to type. At our request they returned a sub-culture, which, on examination, was seen to consist entirely of a similar bacillary form. The bacillary form grows more rapidly and luxuriantly than the typical micrococcus of Malta fever. While at once admitting that this does not constitute scientific proof of a mutation as at present it has been impossible to carry out any further experimental work, it will, nevertheless, I think, be admitted that it is very suggestive. If all the sub-cultures became contaminated, they were all contaminated with the same, or at least a similar organism, although two of them were being grown in a different laboratory to the third, and, further, the micrococcus melitensis did not, or could not, live in symbiosis with the newcomer. We may here note that Park and Williams state that bacillary forms have been observed in old cultures of the micrococcus melitensis, and as is well known bacillary types frequently occur in even young cultures.

When investigating the presence of the pneumococcus among natives living in tropical areas, both Mr. Joseph, my assistant, and I were struck with the frequency with which a Gram-positive bacillus of a diphtheroid type, which culturally resembled the pneumococcus, was observed. In fact, not only culturally, but morphologically, it was often difficult to distinguish it from a true pneumococcus. Among the cultures which we brought back to Johannesburg similar forms were found. We were at first of the opinion that, while we had pure cultures of undoubted pneumococci in some tubes, others were contaminated by this diphtheroid. An attempt was made to separate them from the pneumococcus by subcultivation and plating, but many difficulties and anomalies were observed. Firstly, in some of the sugar-media the growth from one and the same tube had the appearance of a diphtheroid, while in others it resembled the pneumococcus; the diphtheroid-looking organism, if transplanted from the sugar in which it appeared pure to other media, again resembled the pneumococcus. An apparently pure culture of the pneumococcus growing on a blood agar slope for several days produced heaped up limpet-like colonies, which, under the microscope, contained organisms of the diphtheroid type, and some club-shaped cocci. This appearance of a diphtheroid type of organism associated with the pneumococcus has subsequently been observed in a strain isolated by Mr. Joseph from the blood of a patient reported as suffering from pernicious anæmia, and by another of our assistants, Mr. Slawkowsky, in a strain obtained *post-mortem* from a pneumonic lung. We are at present at work on these problems, and it is too early yet to dogmatise as to their interpretation; but, nevertheless, it is probable they are examples of mutations, or change in characters, of the pneumococcus.

Dr. Pitchford informs me that in 1912 several complaints were received from practitioners in Pretoria that Widal examinations for typhoid were returned as negative when the *post-mortem* evidence subsequently showed typhoid lesions. A strain of B. typhosus, isolated from the spleen of a fatal case in Pretoria, gave the usual sugar reactions at the date of its isolation, namely, May, 1912. After repeated sub-cultures had been made, the sugar reactions of growths from this strain were re-examined in May, 1914, and it was found that it produced gas in glucose broth, thus having acquired a character it did not possess when first obtained. This strain had been used for Widal reactions, giving good agglutination with serum from enteric cases from Pretoria, and does so still; but it does not give such massive agglutination results as the rest of our laboratory strains, when tested with homologous serum obtained by animal inoculation.

To summarise, we have seen that alterations in type, including the acquirement or loss of pathogenic properties, may occur in certain groups of organisms, for instance,

The colon group,
The strepto-pneumococcus group,
The acid-fast or tubercle group,
The mycoides-anthrax group,
The diphtheria group.

There are several other groups in which similar changes are suggested by clinical observations; for example, the non-Graming group of diplococci, which includes such organisms as the micrococcus catarrhalis, micrococcus intracellularis, and gonococcus.

There is some evidence that changes not even confined to the group limits may possibly occur, but clearly our conceptions of what constitute the characters of a group are crude and liable to reconstruction from time to time as our knowledge increases.

In face of these facts is it not wise to ask ourselves how far current theories are satisfactory, or whether we should not revise some of the present conceptions in regard to the epidemiology of disease? There is a type of mind, unfortunately not rare, that demands some concrete cut-and-dried theory on which to rest, that cannot endure the uncertainty, and the untiring search for facts, which must precede the construction of any sound theory, and would rather adopt an incorrect hypothesis than be without the mental comfort that to such types an assumed certainty appears to bring. This type demands that some new dogma shall be enunciated before the old is shown to be faulty, and regards all collection of facts in disproof of current theories as so much useless labour or worse, contemptuously labelling such work destructive criticism, as if they had thereby abolished the importance of the facts, and rendered their hypothesis unassailed and unassailable.

If we would be scientifically honest we must accept new facts as we learn them whether they are compatible with our theories or not; this is a truism which in the abstract everyone will admit, but which of us is guiltless of trying to shut our eyes to, or explain away, observations which conflict with our favourite beliefs.

It appears to me that some of the facts to which I have briefly referred required that we should revise our views on the ætiology and epidemiology of disease. There is probably little doubt that there are organisms which are very stable, and among which mutations if they occur at all are very rare. For example, the practical invariability with which a case of smallpox can be traced to a previous one is highly suggestive that in practice we may safely postulate that this disease never arises "*de novo*," but the frequency with which the demonstrable previous case can be traced in this disease is curiously in contrast to our experience in many other diseases. It may be argued that if we are to give up our present theories, if we are to accept the suggestion that a disease may occur without any transference of disease organisms directly or indirectly from some previous case, or if it be true that the organism of one disease can become the causal agent of some other, then the theories of sanitary science require much revision. Doubtless this is so, but on the other hand we must not forget that there is nevertheless a great deal of truth in the theory of the continuity of disease organisms, and clearly we must not abandon what is sound in the old conception, because we have discovered its limitations.

Freed from the trammels of a too exacting theory one might be tempted to indulge one's fancy to almost any extent; there is a temptation to wonder, for instance, when comparing the history of typhus with that of typhoid fever, whether the almost total disappearance of the former disease with the growth of sanitation may have not been due to the inability or great difficulty of this organism, or, rather, its cousins, if it has any, to undergo mutations; or, again, whether the unaccountable cases of cerebrospinal meningitis that from time to time so unexpectedly crop up are not examples of natural mutations of a saprophytic organism; or whether that very common inhabitant of the apparently healthy nasopharynx, the pneumococcus, becomes, as it were, only accidentally pathogenic under special circumstances. But I am afraid I have already exceeded the time allowed me, and these imaginings are probably not very profitable at the present stage.

In conclusion, if I may be allowed to point a moral, and one which at the present time is, I believe, more necessary in medicine than in any other science, it is this: we require to pay more attention to recording facts and to place less stress on hypotheses. The voice of authority has been too insistent, and at the expense of the spade-work of proof. Guess work and dogmatism will never lead to progress, and if we assume a knowledge which we have not, we not only deceive others, but commit that greatest of intellectual offences, we wilfully deceive ourselves.

Sir Robert M. Simon, M.D., F.R.C.P., was the recipient the other day of his portrait, which will be hung on the walls of the Birmingham General Hospital, together with an illuminated address, upon his retirement from the medical staff of the institution after the completion or thirty-five years' service. Lady Simon was also presented with a diamond tiara in recognition of her services upon the Samaritan Committee.

THE RELATIONS OF LARYNGOLOGY TO GENERAL MEDICINE AND SURGERY. (*a*)

By W. PERMEWAN, M.D.Lond., F.R.C.S.Eng.,
Lecturer on Laryngology, University of Liverpool; Throat and Ear Surgeon, Royal Southern Hospital, Liverpool; Throat and Ear Surgeon, Southport Infirmary.

Gentlemen,—The ordinary course of lectures on laryngology will begin in the next summer term. I have thought, however, that it would be well to preface that course with an introductory lecture this term, which might indicate the general scope of the subject and its relation to medicine and surgery as a whole. My reasons for so doing are twofold. In the first place, the subject—so the wisdom of the General Medical Council has decreed—is still a voluntary one for students. If I cannot interest you, I cannot force you to listen to me. And, secondly, I can only induce you to make any study of laryngology by endeavouring to show you that a knowledge of throat diseases will be of advantage to you in the practice of your profession. Not all of you, I trust, will become specialists in this or any other branch, but to all of you a certain knowledge of laryngology is of advantage, and is indeed essential for the right understanding of a wide field of cases which occur either in general practice or in the practice of medicine or surgery.

To-day I propose to point out a few of the many links that bind, and should more and more bind, the specialist to the general physician and surgeon. In the summer I hope, in the few opportunities that are open to me, to go more in detail into the most important facts of a wide subject, by lectures which will be not only lectures but also demonstrations of the actual patients themselves. I invite you to take advantage of the opportunities which exist in this city to give what time you can spare in your crowded course to the clinical study in the out-patient room of laryngology, as it actually presents itself in practice.

The first note I wish to strike is, that though the methods of laryngology are special, there is nothing special about its pathology. Virchow has said that every specialty must be studied and practised in the light of general pathology. I would say in addition that no specialty is worth study which cannot be pursued in that spirit. The danger of specialism is a tendency to the multiplication of special terms, the creation of an esoteric vocabulary which is meaningless to the general physician, and the tendency, too, of the specialist to limit himself too rigidly to the artificial boundaries of his region. I remember a laryngologist showing a case of hæmorrhage into a vocal cord; I asked him whether there were any signs of disease of the liver, and he said, " Oh, I don't go lower than the diaphragm." That is an illustration of the wrong way to practise a specialty. The right relation between the specialist and his brethren is for the general physician to take advantage of the skill, either in diagnosis or manipulation, of the specialist, and the specialist, whilst keeping himself abreast of the progress of general pathology, to place his expertness and often his patient at the service of the general physician or surgeon. Jealousy should give place to co-operation.

Twenty-five years ago the popular conception of a laryngologist was a man who looked down the throat with a mirror to see if the vocal cords were healthy. To-day the scope of laryngology has become a very wide one. The throat specialist of to-day must be a surgeon, a physician, and a mechanical expert. Sir James Paget's definition of a surgeon as a " physician who knows how to use his hands " may well be applied—*mutatis mutandis*—to the largyngologist. He must have a competent knowledge of the trend of modern medicine, or he will miss the significance of much that he sees in the throat and nose; and he must possess surgical knowledge and the surgical instinct, or he will be quite unable to treat adequately the very difficult and complex surgical cases that now come under his charge. His rule for the limitation of his surgical work should, in my judgment, be this: viz., that he should keep to himself those cases which require operation of a kind which from practice he is likely to be better able to perform than the general surgeon; but to hand over those which from his wider experience the general surgeon is likely to be more competent to deal with. If he conscientiously adheres to that rule, there should be no conflict between specialists and surgeons.

I have only time to-day to deal with some of the most important of the relations between laryngology and general medicine and surgery. I will refer to its relations with—

(1) The Respiratory System.
(2) The Circulatory System.
(3) The Nervous System.
(4) The Special Surgery of the Ear and its Adnexa.

The Respiratory System.

The nose and throat are the gateways of respiration. The respiratory functions of the nasal mucous membrane are of the highest importance. If that is normally acting, every particle of air during its passage through the nose is raised to the temperature of the body, and is completely saturated with moisture before it reaches the aperture of the larynx. About a quart of water is added to the air by transudation from the erectile tissue of the nasal mucous membrane; and it is worthy of note that there is no mechanism lower down in the respiratory tract which is capable of performing this function. Besides the warming and saturation of the inspired air, the mucous membrane of the nose has an action on bacteria of the highest importance. By the effect of the cilia of the epithelium impurities are mechanically removed from the nose; the mucus has, it is supposed, a direct bactericidal action, and the air after passing through the nose is practically free from germs. The importance, therefore, of a physiologically acting nasal mucous membrane is of the first rank. It is best appreciated by considering what happens when any abnormal condition produces faulty nasal respiration, or, in other words, the effect of nasal obstruction. Let us consider the commonest type of nasal obstruction, viz., that produced by naso-pharyngeal adenoids. Mouth-breathing is substituted for nose-breathing. Cold, dry, germ-laden air is inspired, instead of warm, moist, sterile air. Can we wonder that there is a tendency to pharyngitis, laryngitis, tracheitis, and bronchitis? Not only so, but there is undoubtedly a greater vulnerability to infection

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(*a*) Introductory Lecture delivered at the University of Liverpool, January, 1914.

by germs of various kinds. Further, in mouth-breathers not enough air is inspired; the chest is not fully developed; aeration of the blood is imperfectly performed; general nutrition and growth is notably interfered with. So, too, the bactericidal action of the nose being in abeyance, the child is undoubtedly more liable to the onset of the ordinary infectious diseases. Happily, many of these untoward effects disappear when the cause is removed, and the results of a well-performed operation for adenoids furnish a convincing proof of the prime necessity of a normally acting nasal mucous membrane.

One of the most interesting relations between the nose and the respiratory system is the case of asthma. What the exact cause of asthma is, is unknown. That it is a neurosis characterised by narrowing of the calibre of the bronchioles is clear; but the exact seat of the lesion, or whether the narrowing is due mainly to spasm of the bronchial muscles or to vaso-motor turgescence of the bronchial mucous membrane, is as yet unsettled. The fact, however, is clear that in many cases the irritation which starts the paroxysm of asthma proceeds from the nose, and in particular from a small region of the upper part of the nasal septum. By electrical stimulation of that area various observers have obtained increase in intra-bronchial pressure, and also spasm of the bronchial muscles. Clinical observations by Francis and others have shown that by cauterising this region very beneficial effects are produced in asthmatics. Dr. Francis goes so far as to say that " the greater part of asthmatics are to be cured by cauterising the upper part of the septum."

The relation between asthma and nasal polypi I have frequently seen in my own practice, and I can say that I have always found relief given by removal of polypi. The polypi act certainly not by producing obstruction, but by irritation; and a small amount of them is sometimes sufficient to give rise to asthma. Certainly no asthmatic ought to be considered as properly treated until the nose has been examined by a rhinologist.

Perhaps the most important relation between the throat and the rest of the respiratory system is that between pulmonary phthisis and tubercle of the larynx. I will try to summarise the most important points in this relationship. The frequency of implication of the larynx in phthisis is very high. Fifty per cent. of *post-mortem* examinations of phthisis show deposit in the larynx; and during life laryngeal complications occur in from 10 to 70 per cent., according to the stage of the disease. Practically all laryngeal tubercle is secondary to lung tubercle; and the infection is conveyed both by the sputum and by way of the lymphatics. The importance of this relationship is that the prognosis of the laryngeal disease must always, whatever treatment be adopted, depend largely on the course of the disease in the lung. That is the predominant factor. So, too, no treatment of the larynx is likely to be of avail unless the patient is placed in surroundings by which his lung disease can benefit.

The result of this view is that nowadays all cases of laryngeal tubercle should be treated under sanatorium conditions, and that rest and the local application of galvano-puncture are the selected methods of local treatment.

THE NERVOUS SYSTEM.

The relations between the throat and the nervous system are many and complex. I will only refer to laryngeal paralysis as an example. Laryngeal paralysis is often the earliest sign of the gravest organic disease in various parts of the body, as will be seen by a consideration of the nervous supply of the laryngeal muscles. The cortical centres in the ascending frontal convolution; the centres for abduction and adduction on the floor of the fourth ventricle; the vagus nerve in its intracranial and extracranial course; and the recurrent laryngeal and superior laryngeal nerves in their long course to the larynx; all these may be the seat of disease, and may give rise to laryngeal paralysis, by which the disease may be recognised. Thus chronic medullary degeneration, as in loco-motor ataxia, general paralysis of the insane, syringo-bulbia, and the like, are all frequent causes of paralysis in the larynx. Aneurysm of the aorta or of its subclavian or innominate branches, or mediastinal growths, may press on the trunks of the laryngeal nerves and produce a similar result. Toxic causes, organic or inorganic, are a frequent source of laryngeal paralysis. In such cases the throat paralysis is often the most early recognisable and may be the first clear sign of organic disease.

Laryngeal paralysis of organic origin often escapes recognition in the early stages because symptoms may be entirely absent. The fact that in these cases only the abductors are first affected, and that therefore there is no alteration of voice, serves to prevent attention being given to the larynx. This, in spite of Sir Felix Semon's insistence on it for many years now, does not seem by any means universally recognised by physicians. It cannot be too often stated that in suspected cases of such diseases as I have mentioned the larynx should be systematically examined whether the voice be normal or not, or whether dyspnœa exist or not.

I have not time to discuss the many aspects of laryngeal paralysis now. The most important conclusions I will draw are :—

(1) The absence of laryngeal paralysis in hemiplegic conditions owing to the fact that the cortical centres are each bilateral in action.

(2) The significance of paralysis of the left cord as a sign of aortic aneurysm.

(3) The value of paralysis of the larynx as a sign of chronic progressive nervous disease.

(4) The absence of signs in the early stages, unless they are carefully looked for.

The relation of the accessory sinuses of the nose to the brain is one of great surgical interest. Thus disease in the frontal sinus may give rise to abscess of the frontal lobe. Ethmoidal disease may produce meningitis, and disease of the sphenoidal sinus, besides giving rise to intracranial abscess or meningitis, is in very important relation to the pituitary body. It is by no means unusual now for operations on the pituitary to be conducted by the intranasal route through the sphenoidal sinus; a route which follows natural and developmental lines.

THE RELATIONS OF THE THROAT AND NOSE TO THE EAR.

The separation of laryngology and otology in practice is impossible. Developmentally the throat and the ear are one: anatomically they are continuous; and nearly all diseases of the ear originate in the nose or throat. Thus adenoid growths in the naso-pharynx produce deafness, and often suppuration in the ears. The bacillus of influenza may, and often does, spread from the nose to the ear, to the lateral sinus, to the brain. Obviously, treatment of the ear is unsatisfactory without treatment of the regions from which ear diseases start; and the prevention of ear disease means the removal of those conditions in nose or throat which produce it. Whatever be the artificial divisions imposed on teachers, no practitioner of ear diseases can possibly neglect the whole range of the throat and nose.

The Digestive System.

The œsophagus and even the stomach are now within the scope of the laryngologist—the invention of the œsophagoscope is beginning to throw a flood of light on the various causes of dysphagia, which before could only be guessed at. Foreign bodies in the œsophagus, instead of being cut out by a dangerous operation, are now removed by the safe assistance of the forceps guided by the eye. There can be little doubt that the gastroscope will do for diseases of the stomach what the cystoscope has done for diseases of the bladder and kidneys.

This is only a slight and imperfect sketch of some of the relations of medicine and surgery to laryngology. No man can now repeat the proud boast of Bacon, and " take all knowledge for his province " ; but he should aim at least in medicine at "knowing something of everything and everything of something." The general practitioner, whether of medicine or surgery, should know enough of laryngology to be on the alert and when necessary seek the aid of the expert, The specialist should remember the dictum of Virchow: he should not wrap himself or his subject in the mantle of mystery, or obscure knowledge by the undue multiplication of esoteric terms. Let me conclude by paraphrasing the words of Lord Bacon: " He is the best practitioner who, being a general surgeon, inclines to the methods of specialism, or who, being a specialist, inclines to the methods of general pathology and general medicine."

GUNSHOT AND BAYONET WOUNDS OF THE STOMACH. (*a*)

By CHARLES GREENE CUMSTON, M.D.,
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A bayonet wound is in all respects similar to any form of stab wound, but the lesions produced by the Lebel bayonet present certain special characters which should be taken into consideration. The Lebel bayonet has four sharp longitudinal projections, separated by four corresponding grooves, and its effects have been studied by Sieur in an article which appeared in 1900 in the *Archives de Méd. et Pharmacie Militaires.*

He found that the wounds produced in the stomach and intestine were rounded, with irregular and slightly contused borders. In the experiments which Sieur undertook on dogs, he found that after the bayonet had been withdrawn the borders of the wound came back in contact with each other, causing complete occlusion of the perforation, through which it was difficult to cause the exit of the gastric contents. On the other hand, when the arm remained in place, the grooves formed true gutters, along which the gastric fluid escaped and accumulated in the peritoneal cavity. Sieur is of the opinion that this bayonet acts by retracting the tissues, rather than by their section or laceration, and this applies to the muscular fibres in particular. A soldier who was wounded by this bayonet in the epigastric region and who died from a wound of the aorta, showed at autopsy that, although the stomach was full of food and completely transpierced, no gastric contents were found in the abdominal cavity. A young girl who was wounded in the epigastric region by a Lebel bayonet presented distinct symptoms of gastric perforation but recovered without operation.

Referring now to the most important part of the subject, that of gunshot wounds, it may be said that to-day the armies of all civilised countries employ a pointed projectile of small calibre, animated by a very great penetrating force. The modern projectile is elongated in shape and of an average calibre of seven millimetres; its length is equivalent to four times its calibre, and it weighs about 15 grams. The nucleus is composed of an amalgam of lead and antimony, which forms a very hard mass, and is covered at the apex at all events, and usually also on its entire surface excepting the base, with an envelope of hard metal. Of the new German S bullet, the new French D bullet, and other types now being studied in Switzerland and elsewhere, we shall, unfortunately, have an overabundant demonstration of their respective values soon.

The lesions differ according to the distance at which the arm has been fired. Beyond 300 metres, these projectiles produce simple perforations which are small and circular, the bullet entering the tissues like a gimlet, spreading them apart, with the result that the borders of the wound may close together, producing an almost complete occlusion. The opening of the exit of the projectile is generally somewhat larger than that of entrance. When the firing distance is less than 300 metres the lesions vary according to the state of plenitude of the stomach. When the organ is empty the wounds present the same characters as those just enumerated and the resulting disturbances will be slight, but the same cannot be said when the stomach is distended with food, and the result is a genuine bursting of the viscus. Such lesions have been produced experimentally by Delorme and reported in Volume II. of his work entitled "Traité de Chirurgie de Guerre." He states that under these circumstances, besides the entrance perforation, which has the diameter of the projectile, and the exit perforation considerably larger, the viscus presents large tears and extensive rents.

Gunshot wounds of the stomach are very frequently accompanied with wounds of the neighbouring viscera. When the shot is fired at a moderate distance the projectile generally transpierces the subject, passing through the pleura, lung, liver, spleen, pancreas, kidney, or even the pericardium and heart. The minimum of damage is met with when the projectile enters in the area of Labbé's triangle, an area in which the stomach is in direct relation with the anterior abdominal parietes, but even here the organs situated behind the stomach (kidney, pancreas) will probably be involved. In other instances the track of the projectile in the tissues is much longer, when the bullet follows the axis of the body. This is met with frequently in soldiers who were in the recumbent position at the moment they were shot, and under these circumstances the lesions are multiple and varied. In one case the point of entrance was in the anal region, while the point of exit was found in the left sixth intercostal space in the mammillary line. The bullet lacerated the hypogastric vein, perforated the small intestine several times, likewise the colon and mesentery, and also went through the stomach.

Such cases are of no clinical interest, however, because death occurs before any help can be offered, and although such lesions are frequent on the battle field, there are fortunate instances in which the stomach alone is involved, or at least represents the principal lesion. It is just these cases that we shall more particularly consider when speaking of the

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(*a*) *Boston Medical and Surgical Journal*, October, 1914, a paper compiled from lecture notes on The Surgery of War.

operative treatment, when this can be resorted to with the slightest chance of success, as we shall see.

Let me now revert for a moment to what I may term the area of gastric vulnerability, and which corresponds to the projection of the stomach on the abdominal wall. Over the anterior abdminal wall this area has an oval shape with its axis almost vertical, or perhaps it would be better to say slightly inclined from left to right and from above downwards, whose greater extremity occupies the left hypochondrium, while the lesser is situated to the right of the middle line corresponding to the pylorus. Its upper limit is represented by a curved line with its concavity parallel to that of the diaphragm, whose uppermost point is at the level of the left fifth rib in the mammillary line. This point undergoes slight oscillations with the respiratory movements.

The lower limits vary. When the gastric cavity is empty they correspond to a transverse line passing at the point of union of the ninth and tenth rib on each side. When the stomach is distended it becomes displaced downwards, and since opinions differ as to this point I will merely say that the most declivous point of the full stomach will be found in the neighbourhood of the umbilicus.

The left lateral limit in the state of complete distension becomes confounded with the limits of the hypochondrium. Usually it attains a verdical line, passing slightly to the outer aspect of the nipple. The right extremity corresponds to the pylorus, which is also subject to variations, but which in its mean situation is found behind the eighth rib, this point corresponding to the external border of the rectus.

Over the posterior abdominal wall the projection of the stomach affects a shape similar to the precedent. The culminating point of its upper curved limit is at the level of the eighth rib in the left scapulary line. In the middle line, its upper limit corresponding to the lesser curvature, obliquely crosses the spine from left to right and from above downwards, extending from the left side of the tenth thoracic to the right side of the first lumbar vertebra. When the stomach is distended the lower limit reaches about to the spinous apophysis of the second lumbar vertebra.

Let it not be understood that a wound whose orifice of penetration is located outside the limits of the area here given may not involve the stomach. With fire-arms this can perfectly well happen, but in this case involvement of the stomach is rather the exception.

Gunshot wounds are the most frequent of any in battle, lesions from the bayonet are the exception. Usually the damage done by the projectile within the abdomen is so extensive that death results at once. Logically, it may well be argued that a laparotomy is indicated to control the dangers of intra-abdominal hæmorrhage, and above all, the effusion of the gastric and intestinal contents. This is what the majority of surgeons thought who were called into action in the South African War, and everything had been prepared for the treatment of abdominal wounds by immediate laparotomy. But the results of this practice quickly showed that the mortality of the operated cases was greater than of those patients treated by temporisation, and the conclusion of all the great amount of matter that has been written on the subject is that a great number of those thus wounded die before they are removed from the field, that among those removed a number die from peritonitis, but that quite a large proportion recover without operation, and that almost all submitted to laparotomy die. Consequently, at the present time opinion is unanimous that abstention is proper, and this is undoubtedly the correct view in the vast majority of cases, since the time required in carrying out these operations is pure loss and could be far more usefully employed in other injuries.

The results were quite the same in the Russo-Japanese war, and it is sufficient to read the article by the Russian surgeon Wreden, published in *The Military Surgeon*, March, 1907, in order to become convinced. In his paper on abdominal wounds in the same war, published in the 84th volume of "Langenbeck's Archiv." Bornhaupt gives statistics of 182 cases treated. All the cases were brought in late to this surgeon, and he obtained a cure in 78 per cent. of those treated by conservative surgery, while 50 per cent. of the operated cases died, but it must be said that the majority of these presented peritonitis at the time of operation

Peritonitis is the only late indication for operating, and in these cases the operative act should be reduced to the minimum. Simple incision to let out the pus and drain the peritoneal cavity, without searching for the gastric lesions, which, unlike wounds of the intestine, have a much more favourable evolution. However, the existence of lesions of the neighbouring viscera may create special indications, such as hernia of the intestine and, above all, intra-abdominal hæmorrhage. What has been said of gunshot injuries to the stomach applies quite as well to lesions from the bayonet, whose resulting wounds generally have a favourable evolution.

The conservative treatment consists in absolute rest, and, if possible, the subject should not be mobilised. This latter is the first condition of conservative treatment. Morphine and opium are to be administered and an absolute diet maintained for the first few days, which should be continued just so long as there is any doubt about cicatrisation of the gastric perforation. Usually, feeding by mouth can be prudently commenced by the fourth day, but it may have to be postponed for a week or so. During this time rectal feeding is exclusively employed, along with the subcutaneous administration of physiological salt solution.

There are those cases which will die from internal hæmorrhage, as I have already said, if not immediately operated on, and this is the only indication for surgical interference in abdominal wounds on the battle field. But since a laparotomy is undertaken for the control of the loss of blood, after this has been accomplished, it is better, perhaps, to do a complete piece of work since the abdomen is opened, and close gastric or intestinal perforations when present. For this reason, and in order to give a clear idea of the operative *technique* of gunshot and stab wounds of the stomach, I desire to go into the surgical treatment at some length, although the indications are very restricted in the surgery of war, as I have endeavoured to show in what has been said.

Given a case presenting the classic symptoms of intra-abdominal hæmorrhage, and supposing that the patient can be transported in sufficient time to the field hospital, the proper incision to be selected is in the middle line in gunshot wounds, because by this a much better exploration can be made and the lesions found. The lesions which cause the hæmorrhage may be so serious that even splenectomy or nephrectomy may be required, but wounds of the pancreas or liver can be sutured. Therefore begin at once to examine for the sources of bleeding in the left hepatic lobe, pancreas, spleen and kidneys, because gunshot wounds of these viscera are detected by the flow of blood. When this has been found and the proper treatment applied, one can next proceed to explore the small intestine for perforations, never forgetting the duodenum. Then the stomach is next examined, and I wish to impress upon you the importance of never neglecting the examination of the posterior gastric wall as well.

In bayonet wounds the exploration of the abdominal viscera need not be quite so complete, because multiple lesions from this cause are infrequent, but nevertheless, the arm may enter deeply and involve deep-seated structures, such as the splenic or renal vein. Examination of the small intestine need not be resorted to, as multiple perforations from stab wounds are practically unknown. When the hæmorrhage has been controlled and the gastric perforation found, you will proceed to deal with it. It is needless for me to go into the *technique* of thoracotomy in wounds in which the bullet enters through the thorax into the abdomen, as it is too formidable an operation to be done in a field hospital, and therefore I shall not refer to it.

Gunshot wounds of the stomach usually penetrate both walls of the organ, and median laparotomy is the proper incision. Of the other incisions I shall say nothing because, although they certainly may be of advantage in some few cases in civil practice, they have none in the surgery of war. By the median incision the left hepatic lobe, stomach, spleen and pancreas, likewise the kidneys and intestine, can be thoroughly explored. But in bayonet wounds median laparotomy is to be done only when the wound is in the neighbourhood of the linea alba, otherwise the incision should be made at the point of abdominal perforation, since one has not to search for multiple lesions. When perforation of the posterior gastric wall occurs it is generally seated directly or nearly opposite the anterior perforation, so that it can more readily be discovered by posterior exploration. The intestine is rarely involved, and in the few cases where this has been the case the transverse colon has been the organ injured. In cases where the wound is situated in the left flank I believe that the abdominal incision made parallel with the costal border is to be preferred, as it gives an easier access to the hypochondrium and subphrenic region. Should more space be required during the operation a median incision can be advantageously added.

The exploration of the anterior surface of the stomach is usually easy, excepting in the region of the cardia. The gastric perforation usually comes into view when the abdomen is opened, but when it is very small, as is sometimes the case, it must be searched for with much attention. Occasionally, it is seen in the form of an ecchymosis, which must be closely examined in order to discover the perforation. Sometimes it is hidden by a blood-clot, or it may be concealed in a gastric fold. In order to expose the perforation in the latter case, the gastrocolic ligament is incised, and by introducing the hand behind the stomach the anterior surface is unfolded and the perforation brought to light which would otherwise escape attention.

As I have said, the projectile generally perforates both gastric walls and the orifice of exit is usually seated in the posterior wall. In bayonet wounds the anterior perforation is usually the only one, but it must be recalled that perforation of the posterior wall occurs in about 10 per cent. of these injuries. Therefore, the surgeon must not omit exploration of the posterior wall in these cases. Extragastric exploration is a necessary step in the interference in both gunshot and stab wounds, and this is done through the gastrocolic omentum, but when the perforation is near the lesser curvature it is, perhaps, better to go through the gastro-hepatic omentum. By this latter route it is easier to suture a wound of the pancreas. An incision in the transverse mesocolon may sometimes be preferred. But these are not methods of choice, because by the former the access is difficult and does not allow one to explore the entire posterior gastric wall, while in the latter, if the opening is at all large and this is necessary, there is danger of injuring the vessels of the mesocolon. It is also better to avoid working in the lower part of the abdomen, necessitated by this *technique*, particularly when the case is one of stab wound which does not require examinaton of the small intestine. Therefore, incision of the gastrocolic omentum will be the method of choice, and with a large opening it is sufficient for all operative work, and involving several of its vessels will not compromise the vitality of the great omentum.

When the perforation is in the middle or lower portion of the stomach it can readily be seen and closed through a relatively small opening made in the ligament with hæmostasis, but the same does not apply when the perforation is seated high up on the posterior wall near the cardia. To accomplish a good suture here, the stomach must be turned upwards in order to expose its posterior aspect thoroughly. The costal borders hinder the operation, and it is for this reason that several types of resection of the costal cartilages have been described, but I do not hesitate to say that by median laparotomy perforations situated high up can be sutured, on the condition that the opening in the gastrocolic omentum is sufficiently large.

It is well to make it extend from the pylorus to the left angle of the colon, and thus one can quickly explore the posterior aspect and carry out a careful cleaning of the retrogastric space. Gangrene of the greater curvature need not be feared if the opening is made two centimetres from the stomach, so as to avoid the gastro-omental arteries.

In some special cases extragastric exploration will be insufficient, in which case gastrotomy is to be resorted to, but before doing this a cushion should be placed under the lumbar region, which may render the examination easier and the endogastric procedure may not be required. However, should this be deemed necessary, the incision in the anterior gastric wall should be horizontal, at least three inches long, and made at equal distance from the curvatures. Introducing the hand behind the stomach, the posterior wall is made to protrude through the gastric incision. The mucosa is wiped with compresses, after which the surface is examined. One may thus discover an ecchymosis or a perforation which would otherwise have been overlooked.

This *technique*, which in gastric ulcer is rather simple, is less so in traumatic perforation, because in the former the gastric cavity is apt to be empty, while very frequently the stomach is full at the time the gunshot injury is received. This being the case, the contents must be removed through the incision, with all due care not to let any of it escape into the peritoneal cavity. Very few surgeons have resorted to endogastric exploration in gunshot wounds, and when it has been done, the incision in the anterior wall has been timidly made, with the result that the posterior perforation has been overlooked. In the case of President McKinley, the anterior perforation was simply enlarged and the gastric cavity explored with the finger, and the posterior perforation was only discovered by a direct examination of the posterior wall.

It is true that simple inspection of the outside of the stomach wall may fail to reveal a perforation, and this has happened in several cases, but it is uncommon if the operative *technique* that I have advised is followed. Always remember that the perforation in the posterior wall may be in the duodenum.

There is one lesion that may require gastrotomy for its discovery. I refer to contusion of the posterior gastric wall from the projectile. This lesion is uncommon, but it is often the cause of hæmorrhage and ulceration. It is also indicated when external exploration does not reveal any lesion sufficient to explain the symptomatology, when, for example, there is free hæmatemesis due to contusion of the stomach without perforation of the organ. This has been observed in practice. As can readily be seen, the endogastric exploration has a limited field of usefulness, but occasionally it may be required.

The closure of the perforations is the same in gunshot wounds as in any perforation of the gastro-intestinal canal. When there is much contusion of the borders an economical resection of the exuberant mucosa is indicated. When the opening is at the pylorus or cardiac end of the stomach the sutures should be placed perpendicularly to the axis of the portion involved, in order to prevent stricture. If the loss of tissue is considerable, it is better to suture the perforation to the skin in order to save time. When there is a simple abrasion of the outer coat of the stomach it should be buried under a peritoneal suture in order to avoid future complications.

Free drainage of the abdomen is absolutely necessary, no matter how small the perforation, and should be established in those regions where liquid is most prone to accumulate, the left hypochondrium for perforation of the greater tuberosity, the space comprised between the liver and stomach in perforation of the anterior gastric surface and lesser curvature.

For posterior gastric perforation the retrogastric area must be drained with care, the best manner being through a lumbar incision. It can be done, however, through an incision in the gastrocolic ligament. Packing the retrogastric space may be necessary for controlling slight bleeding from a sutured pancreatic perforation. Absolute quiet is essential for the first few days, and feeding by mouth can usually be begun on the fourth day, but should vomiting occur it must be stopped at once and not again attempted for several days.

In closing let me say that I have only dealt with the operative treatment of gunshot perforations of the stomach as met with in the field hospital, and allow me to again impress upon you the fact that these should never be treated surgically unless laparotomy is indicated for intra-abdominal hæmorrhage, as more lives will be saved under the circumstances by a careful conservative treatment.

OPERATING THEATRES.

ROYAL FREE HOSPITAL.

Cystic Adenoma of the Breast.—Mr. Willmott Evans operated on an unmarried woman, æt. 34, for a swelling of the breast. She had noticed a swelling in the right breast for more than three years. It had increased in size during this time, and she had occasionally felt in it some indefinite feeling of pain, but not sufficiently to give her any trouble. Her reason for coming to the hospital was her anxiety at the presence of a tumour and her fear that it might prove to be cancer. On examination, an obvious swelling was seen in the upper and outer segment of the right breast; the skin over it was not discoloured and the nipple was not retracted. On palpation it was felt to be a rounded swelling about an inch and a half in diameter, and at one point fluctuation could be elicited. The skin was not adherent to it, and it was not adherent to the pectoralis major muscle. No glands were perceptible in the axilla or above the clavicle. A diagnosis of cystic adenoma was made.

The patient having been anæsthetised, an incision two inches in length was made over the swelling in a direction radiating from the nipple. A very thin layer of breast tissue was cut through, and then the capsule of the tumour was opened, and from it the growth was shelled out without difficulty. Two small vessels needed ligature, the skin was sutured after a stitch had been put in to bring the walls of the cavity together, and the wound was dressed with aseptic gauze.

Mr. Evans said that in this case the diagnosis was not difficult. In the first place, the long history, more than three years, was greatly against the idea of malignancy, for although a malignant growth may develop very slowly, yet in three years it would almost certainly have given some indication of its malignancy, such as retraction of the nipple, adhesion to the skin or muscle, or the presence of enlarged lymphatic glands. In the second place, fluctuation showed the presence of liquid, and therefore the tumour contained a cyst, and cysts, though not unknown in carcinomata of the breast, are extremely rare. The next point to be considered is whether it be desirable or necessary to excise simple growths of the breast; in the majority of cases they do no harm, but occasionally they become malignant, and moreover they may give rise to much anxiety. On the whole, therefore, it is best to remove a simple growth of the breast. The incision to be employed in removal of a non-malignant growth of the breast is of some importance: if the incision is made through the convexity of the breast, it should radiate from the nipple, otherwise some of the lactiferous ducts are liable to be cut across, and this might lead to retention cysts in the breast. Sometimes it may be desirable to render as little obvious as possible the scar of the incision. This may be accomplished by making the incision below the lower edge of the breast and curving it so as to follow the contour of the breast. The organ is then raised from the chest wall and it is incised on its posterior aspect over the tumour. When the wound is healed the breast will hide the scar. This method is not suitable for those cases in which the growth is close to the surface of the breast, as in the present case. By far the commonest benign tumour of the breast is the adenoma, though it is rare to see it without some fibrous tissue, but the relative proportion of fibrous and glandular tissues varies enormously in different cases: sometimes the amount of glandular tissue is so small that a hasty examination of a section with the microscope might lead one to think that it was a pure fibroma. Pure fibromata do occur in the breast, but they are rare. In any adenoma the secretion of liquid by the glandular tissue would lead to the formation of a cyst, so there is no reason for surprise that cysts are often found in conjunction with adenomata, and that fibro-cysto-adenomata are often seen. This tumour in this case belonged to this group.

The wound healed by first intention, and the patient left the hospital after a few days.

CORRESPONDENCE.

FROM OUR SPECIAL CORRESPONDENTS AT HOME.

SCOTLAND.

Aberdeen University Lord Rectorship.

At a joint meeting of the Liberal and Unionist Associations of Aberdeen University it has been unanimously agreed to adopt Mr. Winston Churchill as the Imperial candidate for the Lord Rectorship. At the formal nomination next week, Mr. Churchill will be proposed by the President of the Unionist Association, and seconded by the President of the Liberal Association. The date of election is November 7th.

Edinburgh Students under Arms.

From the report of the Business Committee of the General Council of the University, presented at the statutory half-yearly meeting of the latter body on October 30th, it appears that the number of matriculated students is 700 less than last year, and of these the great majority are serving with the Crown. It is known that between 300 and 400 members of the O.T.C. have received commissions. Many graduates are also under arms, and twelve members of the staff are serving with the Forces. At the meeting of Council reference was made to the gratification all felt at the *rôle* played by their Alma Mater, and it was stated that efforts are being made to compile a roll of honour of the University and to have it published.

Tragic Death of Army Doctor.

On the 24th ult., as the Edinburgh express due at Glasgow about noon was approaching Uddingston station near Glasgow, a gentleman of military appearance who was sitting on a seat at the extreme west end of the down platform, was seen to rise, and in some unexplained way he got on to the rails in front of the train as it dashed through. He was cut to pieces. The remains were afterwards identified as those of Major William Douglas Erskine, Royal Army Medical Corps, Junior United Service Club. He was on the retired list, and came from Bournemouth recently to take up residence at 53 Kyle Park, Uddingston. Major Erskine graduated at Glasgow University in 1887, and was about 50 years of age at the time of his death.

Scarlet Fever in Glasgow and Paisley.

The outbreak of scarlet fever has resulted, in Glasgow, in 1,065 cases, and in Paisley 141. In Glasgow the disease, though widespread, has not attained epidemic dimensions. Infectious diseases in Glasgow exist to the extent of 6,685 cases, in the city hospitals and under sanitary supervision at home. This includes cases of tuberculosis.

Medical Men and Municipal Elections.

The war is not interfering with municipal elections on this side of the border. We are further removed from the chief scene of hostilities, although taking our full share in the combat. In Glasgow two medical practitioners are seeking seats in the Town Council. One, Dr. James Erskine, is put forward by the Labour Party, in Anderston Ward. He was in the Council for some years, but lost his seat. The other, Dr. R. B. Lothian, is standing against a labour candidate and another candidate in a three-cornered contest.

Glasgow Medico-Chirurgical Society.

The meetings of this Society have been absolutely cancelled so far as regards the programme up to Christmas; and, if the war should continue, the whole meetings for the winter will be abandoned.

Edinburgh and Glasgow Matriculation.

The number of students who have matriculated at Edinburgh University is 2,051, and at Glasgow University 2,275. This is the first time, we think, for very many years that Glasgow University has surpassed Edinburgh in this respect. Of course, the times are not normal; and, again, the Edinburgh School of Medicine for Women is not a part of Edinburgh University, while in Glasgow Queen Margaret College is a part of the University. Both Universities have contributed largely, in the way of officers and recruits, to the Army, in addition to those teachers and students on duty as Territorials. Notwithstanding this, the male medical students at Glasgow number 553, of whom a large proportion are probably first year students, and a still larger proportion under military age. The Indian students at Glasgow number 51, the Russian 18, and the Chinese 15.

BELFAST.

Royal Victoria Hospital.

The Board of Management of the Royal Victoria Hospital, Belfast, have had within the last few days to decide a rather important question—namely, the propriety of admitting to its out-patient department and wards women holding the certificates of the St. John Ambulance Association and of the Red Cross for a short period of training. A like privilege was sought by the Principal of the Technical Institute of Belfast for members of classes in first aid and nursing. These applications received very careful consideration, and the arguments pro and con were impartially placed before the members by some of the medical staff and others. The Board announced that it could not accede to the request, but promised that should the War Office consider that a serious emergency had arisen at any future time they would be prepared to revise their decision. The decision of the Board was much influenced by the fact that the War Office had declared that none but fully-trained nurses would be sent to the front, and that a reserve of at least 1,500 trained nurses are in readiness to proceed to the front if required. The Board of Management further considered that while a body of medical students numbering 150 and over, in addition to a large number of probationers, were receiving instruction there was not room for those who, while doing a good work, were after all rather of the nature of amateurs.

LETTERS TO THE EDITOR.

[We do not hold ourselves responsible for the opinions expressed by our Correspondents.]

THE DISTRESS IN THE RANKS OF MEDICINE IN BELGIUM.

To the Editor of The Medical Press and Circular.

Sir,—Professor Jacobs, of Brussels, who has himself been serving on the Red Cross in the war in Belgium, has come to England in order to enlist the sympathy of the medical profession and the public generally for the sad and pitiable condition of the doctors throughout Belgium. The object is to raise an international fund for their relief. The subjoined statement gives briefly the proposals of the Belgian Provisional Committee, and as it is of urgent importance that these should be widely known, may I ask for its insertion in your columns.

I am, Sir, yours truly,
H. Macnaughton-Jones.

Harley Street, London, W.,
November 1st, 1914.

The consequences of the terrible war now raging are disastrous in the extreme for the profession in Belgium. Already a large number of Belgian doctors have been shot, and it must happen that many more will meet the same fate. The majority of those living in the towns and villages that have been pillaged and burnt are utterly ruined. The demand is pressing for immediate assistance for the widows and orphans of the doctors and pharmacists, as also for those who are deprived of their means of existence through the devastation caused by the hordes of Germans who have overrun the country. The winter is approaching, epidemic outbreaks are anticipated, and the hunger-stricken people, enfeebled by want and privation, will fall an easy prey to infectious diseases. Utterly destitute, they cannot pay for treatment at the hands of men, the majority of whom are themselves unable to maintain an existence for their wives and families; no need is there to dwell on the miserable plight of those who find themselves in such straits. Equally unfortunate are the pharmacists whose laboratories have been burnt. At such places as Tamines, Malines, Louvain and elsewhere, temporary laboratories have been formed from out the *débris* of the smoking ruins of their establishments.

A provisional Belgian Committee has been formed consisting of Professors Stiénen and Jacobs, of the University of Brussels, Professor Béco, of Liége, Professor Schockaert, of Louvain, and Professor Benglemans, Secretary of the National Therapeutical Society of Belgium. The objects are twofold:—

(1) To secure immediate relief for the doctors and pharmacists deprived of their means of livelihood.

(2) To establish an annuity fund for the widows and orphans of those killed during the war.

It is proposed to create two separate funds—one, raised by voluntary subscriptions, will be devoted to the urgent needs of those requiring immediate assistance, both medical men and pharmacists. The other will be a loan fund, the money to be given on a small rate of interest on a guarantee of its being returned at a specified time. This will enable the doctors to continue their work. The details of working out the scheme will be arranged by a Central Committee sitting in London representing the United Kingdom. It is hoped that the work will extend to our Colonies, the United States, Italy, Sweden, Norway, Brazil and the Argentine Republic.

(Signed) Jacobs,
Professor in the University of Brussels.

THE STUDENT'S TRAINING.

To the Editor of The Medical Press and Circular.

Sir,—The increase of work laid upon the medical profession by the National Health Insurance Act is now greatly augmented, and for an indefinite period, also by attendance on the sick and wounded of our own and the Belgian Army. The demand for medical men being in excess of the supply brings into higher relief the question of whether, in some subjects, the knowledge required by our Universities and licensing authorities from candidates for a qualification is excessive. Take, for example, chemistry. The medical student attends a course of chemistry equally suitable for one who is going to be a manufacturing chemist. The Examiner figures to himself a case in which a practitioner has need of acetic acid, but he has none, whether in the shape of vinegar or otherwise, nor can he procure any from any shop or house for love or money within many miles. He therefore imagines the medical man setting up a manufactory for himself, and in anticipation of this he asks the medical student in his examination paper: "How can acetic acid be prepared from wood?"

Again, in the domain of zoology, the Teacher and the Examiner forecast a likely case, in which a man rushes into the consulting room of a medical man and desires to be informed what the cyclostomata are. In answer to the "patient's" inquiry, the doctor, having a retentive memory and a lively recollection of a question put to him in his paper on zoology, is able to reply that the cyclostomata are an order of cartilaginous fishes having circular mouths. The doctor pockets his fee and the patient retires.

When so many special subjects of a more useful type are being added to the later years of the student's curriculum, is it not high time that less knowledge should suffice him in physics, chemistry and zoology?

I am, Sir, yours truly,

Observer.

NEWSPAPERS AND QUACK ADVERTISEMENTS.

To the Editor of The Medical Press and Circular.

Sir,—My attention has been very much drawn to this subject by the great, although by no means too great, space it has occupied in your pages. I take in one of the foremost London daily papers; and until recent years have never troubled about the advertisements, or given any serious thought to them. I am now more alive to the facts explained in your pages; and I am able to see the magnitude of the scandal. I have carefully scrutinised the pages of my paper since the issue of the Report on Patent Medicines. This paper had an editorial notice of the report. I send you a selection of cuttings of glaringly fraudulent character which are daily appearing, including one of the most impudent of the day, in which an attempt is made to exploit our brave soldiers at the front. The Editors, the owners, and the manager of the paper I allude to are each and all aware that the advertisement is a swindle.

I am, sir, yours truly,

J. Wilson.

October 16th.

OBITUARY.

MR. ALFRED H. JACOB, L.R.C.S.I.

We regret to announce the death of Mr. Alfred Hildebrand Jacob, L.R.C.S.I., which occurred last week in Dublin after a long illness. Dr. Jacob obtained the diplomas of the Conjoint Board of the Irish Royal Colleges in 1899, and spent most of his professional life in South Africa. He practised for many years at Dewetsdorp in the Orange River Colony. Early in the present year he returned to Dublin. Dr. Jacob came of a family closely associated with this journal. His father, Dr. A. H. Jacob, was for many years our Irish editor, and his grandfather, Dr. A. Jacob, was the founder and first editor of The Medical Press.

REVIEWS OF BOOKS.

CANE SUGAR AND HEART DISEASE. (*a*)

Dr. Goulston's studies on the effects of cane sugar in heart disease have been familiar to us for some time past, and we welcome with considerable pleasure the appearance of his observations on this remedy along with the notes of twenty illustrative cases collected together into the present volume. In the first chapter the author gives an account of the manner in which he was first led to adopt the sugar treatment thirteen years ago in a case which did not respond to drugs, and as a forlorn hope. The treatment in this case was entirely successful, as have been a large number of others running into hundreds, various representative and characteristic ones being quoted by him. The author draws particular attention to the fact that pure *cane* sugar must be used, since sugar prepared from the beet is found to be inefficacious. All modern physiologists agree that the glycogen stored in muscle is converted into dextrose by an amylolytic ferment. What is not so generally known is that dextrose has a powerful nutritive effect upon the heart muscle. Hence, from this it follows that cases in which the myocardium is at fault are those in which cane sugar has a specific action. Such are auricular fibrillation in particular, and those with evidences of high blood pressure and arterio-sclerosis. We are of the opinion, from the illustrative cases published by the author, as well as those within our own experience, that Dr. Goulston has amply proved his point, and we congratulate him upon bringing forward a valuable addition to the armamentarium of the physician in cases of cardiac failure.

THE NEWER PHYSIOLOGY. (*a*)

The bearing of many physiological problems and principles upon everyday medical practice is becoming gradually more recognised by others beside the consulting physician. To the general practitioner as much as to the operating surgeon will the contents of Prof. Short's excellent little manual make a strong appeal, for its contents, fuller and newer than in the first edition three years ago, include such subjects as vitamines, surgical shock, transplantation of bone, pituitary feeding, purin bodies, acetonæmia, nerve injuries, and many others which have a close relationship to the common aspects of disease which confront us all. The author considers that the abiding value of Prof. Crile's work lies in the beneficent effect of his method of nerve-blocking local anæsthesia whereby the lower level centres of the cerebro-spinal axis are protected and general shock thereby prevented. A clear account is given of the modern view of the absorption of protein material within the intestine as amino-acids, which are the actual substances that enter the blood-stream. Since the ferment erepsin converts the peptones into amino-acids it must not be supposed that a patient is saved the necessity of digesting peptonised foods when these are administered. With regard to the question of the absorption of foodstuffs by the large intestine, Prof. Short asserts that the crucial experiment is, Can amino-acids be absorbed? In order to determine this point the author, together with Dr. Bywaters, estimated the nitrogen in the urine in patients after daily enemata of milk pancreatised for twenty-four hours, so as to convert most of the protein into amino-acids. They find after analyses that these bodies are absorbed, and that therefore patients may be nourished by rectal injections of milk thus pancreatised, even though ordinary peptonised milk be a failure. In the concluding chapter on cutaneous anæsthetics the author effectually disposes of the idea that belladonna liniment diminishes the sensibility to pain over the area to which it is applied, but "it is a thankless task," he says, "to pull down strongholds of belief, but it is necessary if only to direct more attention to the true means of giving relief to pain, including general drug treatment, rest, massage, counter-irritation, heat, and passive hyperæmia." Prof. Short's book is one that deserves to be widely read by all who desire to keep up to date in their work.

BACTERIOLOGY. (*b*)

This book has always been very practical and noted for the wide ground it covers. Prominent teachers of clinical bacteriology as a rule give scant attention to disinfection and water bacteriology. Prof. Hewlett is as competent an authority on sanitary bacteriology as he is on the clinical department, and every part of the subject receives thorough treatment. A very effective sifting of the huge amount of recent work has been accomplished for the benefit of those who are so well advised as to get this fifth edition. Criticism and description are alike excellent, so, too, are the omissions. The last are especially noticeable in the case of diseases that have recently proved pregnant sources of speculation. The author limits himself to mention of the probable *rôles* of flies and

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(*a*) "Cane Sugar and Heart Disease." By Arthur Goulston, M.A., M.D.Cantab. Demy 8vo. Pages viii. and 107. London: Ballière, Tindall and Cox. 1914. Price 5s.

(*a*) "The Newer Physiology in Surgical and General Practice." By A. Rendle Short, M.D., B.S., B.Sc. Lond., F.R.C.S.Eng.; Hunterian Prof. Royal College of Surgeons; Examiner in Physiology for the F.R.C.S.; Hon. Assistant-Surgeon, Bristol Royal Infirmary; Senior Demonstrator of Physiology, University of Bristol. 3rd Ed. Revised and enlarged. Pp. xi., 256. Bristol: John Wright and Sons, Ltd. 1914. Price 5s. net.

(*b*) "A Manual of Bacteriology, Clinical and Applied." By R. Tanner Hewlett, M.D., F.R.C.P., D.P.H.Lond., Professor of Bacteriology in the University of London, etc. Fifth Edition. Pp. 668 and xii, with 26 plates and 69 illustrations in text. 1914. London: J. and A. Churchill.

naso-pharyngeal mucosa when dealing with infantile paralysis, and no mention is made of old wood, cancer houses, and uncooked vegetables when dealing with malignant disease. He gives an opinion that malignant disease is not due to a micro-parasite, but is derived from the irresponsible division of cells of the normal or of embryonic tissue. While one can understand an omission to deal with swine fever serum and virus, mention should have been made of epizootic abortion in cattle. The book now contains descriptions of the cultivation of spirochætes, but although the author mentions Noguchi's "luetin," he contents himself with a remark that "in syphilitic infection, redness sometimes becoming pustular, develops at the site of inoculation."

Special commendation must be given to the chapter on leprosy, not only for the treatment of the various culture methods that have been put forward, but also for the trite statement that the mode of spread is probably by personal contact, though possibly insects play some part—an excellent and very judicious comment on the radically opposite opinions of leprologists as to infectivity. This is in tacit agreement with the resolutions of the Bergen Conference of 1909.

Since this book went to press, the report of the Inter-Departmental Committee on Sleeping Sickness has been published and has emphasised the existence of two distinct and separate forms of the disease—the Uganda form and that prevalent in Nyassaland and Rhodesia. Professor Hewlett's book was quite ready with a description of *Tr. Rhodesiense.*

So far as disinfectants are concerned, there is little real progress chronicled since 1903. Many methods of testing them have been acclaimed and then fallen into disuse. The only one that is at all seriously described here is the Rideal-Walker test, and few who have studied the question will criticise the omission of more than brief mention of many others.

Bacteriologists have differed considerably over the relative longevity of *B. coli* and streptococci in contaminated water, and the reasonable deduction is that under different conditions either may outlive the other. Further, it is alleged, though the reviewer has never met with a case, that sometimes the streptococci will kill off the colon bacilli, with the result that when the latter only is estimated a grossly polluted water may appear free from fæcal contamination. At any rate, in the present state of our knowledge it would certainly seem wise to insist on an enumeration of streptococci in all suspicious waters which do not give damning evidence with the estimation of colon bacilli.

PAIN, ITS ORIGIN AND SIGNIFICANCE. (*a*)

PAIN is well nigh ubiquitous; it is present in almost every disease and is often the first, if not the only, symptom that brings the patient to the physician. Dr. Behan has realised this, and, seeing the importance to every medical man of intimate familiarity with its causes, course, and circumstances generally, has offered us this book. It is a fine book and a good book. The author has diligently searched the literature, as a bibliography of no less than 63 pages shows, and has extracted much that is good therefrom. This mass of valuable experience he has sifted and sorted and seasoned with the salt of his own knowledge, and the result is practically an exhaustive treatise on its subject.

We are given the essentials and components of every imaginable pain. Pains are discussed according to their locality, their causation, their intensity, and their significance, and a determined effort is made to define the term "pain" itself. There is hardly a statement without a reference, and an authority is even cited for the description of the behaviour of an earthworm suffering from mechanical division. There is nothing that the author has spared himself, and his labours have produced a book that we may well consider as complete. There is not much in it that is original or brilliant, but it has all the solid virtues. It is definite in its statements, as far as we can judge it is trustworthy, and it gives both sides of any disputable question. It is amply and on the whole well illustrated, but the photographs reproduced in Figs. 37, 85, 101, and 107, are technically poor, and could be easily improved. The book is well printed and adequately bound, and we detected no misprints. In short, Mr. Behan and his publishers, Messrs. Appleton, are responsible for a work that gives us a very full and accurate *résumé* of our present knowledge of pain, and we find it hard to imagine that anyone interested in this subject could search this book for information and go away disappointed.

IONIC MEDICATION. (*a*)

THE principle of the electric penetration of drugs in the form of ions as utilised in the treatment of disease has found favour with an increasing number of practitioners since the researches of Leduc into the subject in 1903. When one considers the ease with which ionic medication can be applied and the simplicity of the apparatus required it is rather surprising that this method of administration of drugs has not become more general, for it cannot be denied that the results obtained by it are often extremely good. As an introduction to the subject, giving at the same time full details as to *technique*, Dr. Lewis Jones's handbook fulfils every requirement, and the practitioner who follows the plain directions laid down therein will speedily become an adept in the art of ionic medication. We note that the author considers that ionisation is more effective than any other methods of treatment in the troublesome and painful conditions around the elbow-joint, often described as "tennis elbow." In lumbago, facial paralysis, and the modern malady known as fibromyositis, a few applications of the salicylic ion to the areas affected will afford relief quickly, and may bring about a cure. The treatment of rodent ulcer by zinc ions is sometimes quite brilliant, but now and then relapses will occur which the author thinks may be ascribed to the imperfect penetration of the ions, which are precipitated in an insoluble form as zinc phosphate when they come into contact with the plasma. The first two chapters dealing with the necessary apparatus should be thoroughly mastered before attempting to apply the treatment to patients.

ALCOHOLIC FERMENTATION. (*b*)

THE question, and questions, of alcoholic fermentation show no indication of decay of interest for the inquiring mind of fallen humanity since (and pretty surely long before) our common ancestor planted the first vineyard, directly after his escape from the ark. Not merely does the alcoholic question continue to advance "in a general way" with the collective wave-front of all physical science, it presents a human interest which is all its own, and of which the existence was voiced in the paradoxical aphorism of one of the most highly inspired of all poets: "Man, being reasonable, must get drunk." Thus, while humanity still continues to remain in its present unregenerate state, the preparation and properties of alcohol will assuredly continue to furnish some of the most important and interesting of existing questions and considerations: for the economist, the politician, and the philanthropist; as well as for the chemist, the physiologist, the therapeutist, and the philosopher.

The present work represents an expansion of lectures formerly delivered by the author. Very necessarily, as every intelligent reader will have anticipated, its text does not contain everything that has been said or guessed about the inexhaustible subject of fermentation. But it skims the cream of historical presentation and of physical result which has floated to the surface of this vast laboratory of analytical action and reservoir of synthetic thought.

(*a*) "Pain: Its Origin, Conduction, Perception and Diagnostic Significance." By Richard J. Behan, M.D. Cloth, 920 pages. With 191 illustrations in the text and many diagnostic charts. New York and London: D. Appleton and Co. 1914. Price 25s. net.

(*a*) "Ionic Medication." By H. Lewis Jones, M.D., F.R.C.P., Consulting Medical Officer to the Electrical Department in St. Bartholomew's Hospital, etc. Second edition. Pp. viii., 155. Crown 8vo. London: H. K. Lewis. 1914. Price 5s. net.

(*b*) "Alcoholic Fermentation." By Arthur Harden, Ph.D., D.Sc., F.R.S.; Professor of Biochemistry, London University, etc., etc., London, New York, Bombay, Calcutta and Madras: Longmans, Green and Co. 1914.

The text and bibliography of this second issue have undergone important expansion. The author is a past master of his subject, who is quite as skilful in the arrangement of his facts and lucidity of his explanations as he is in his personal grasp of all the threads of the otherwise tangled skein of his data, and the penetrating power of his logical illumination of every facet of his kaleidoscopic subject. It is hardly necessary to add that we anticipate an early appearance of the third edition.

FALMOUTH IN WINTER.

THE Corporation of Falmouth have sent us the official guide to that town and its environs, thereby hoping that the publication of a clear and illustrated statement of its claims as a winter health resort may attract some of the throngs of pleasure seekers and of delicate individuals who yearly migrate to the French, Italian, and Algerian coasts from the United Kingdom on the approach of winter. That Falmouth has justification for its claim of "Queen of the West" on the Cornish Riviera must be admitted by all who have personal knowledge of the beauties of nature here revealed; and the tables of sunshine furnished by the Medical Officer of Health tend to prove that visitors will not miss much in this direction through enforced absence from their accustomed Continental residences. That our charming resorts on the South-West Coast of Great Britain, such as Bournemouth, Torquay, St. Ives, Fowey, Penzance, etc., should come into their own this winter is assured. What the army of mere pleasure-seekers will miss are such distractions as Casinos, Battailles des Fleurs, etc., but the absence of these will not affect that still greater army of invalids and those whose constitutions are not sufficiently robust to withstand the winter amenities of our great cities. These will naturally seek advice of the medical profession, and they will, moreover, have this item to the credit of their purse and of fatigue, that through the enterprise of the Great Western Railway Company they have now but six hours' railway journey from London in luxurious trains to reach that beauty spot, Falmouth, on the Cornish Riviera.

LITERARY NOTES.

WE have received from Mr. H. K. Lewis, of 136 Gower Street, London, a "List of Medical Journals," conveniently grouped under subjects and giving the subscription rates. It should be of use to Librarians, Secretaries, and individual medical men and specialists seeking information respecting periodical publications. Thus, "General Medicine" is represented by no fewer than eighty journals, "Nervous and Mental Diseases," by twenty-four, but at least half of the 300 titles given are unprocurable, while this disastrous war lasts. We would draw the publisher's attention to the error, giving the annual subscription for THE MEDICAL PRESS AND CIRCULAR outside the British Isles as 23s. 6d. It should be 21s., the same as in the United Kingdom.

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FROM the Scientific Press, Ltd., comes a small shilling book entitled "Standard Prescriptions for Insurance Practice." It has been compiled by Dr. G. H. Gunson, of Wisbech. Its object is to give medical men administering the Insurance Act a collection of useful prescriptions so that there may be a certain uniformity attained in the treatment of patients. The prescriptions are, on the whole, satisfactory, and doubtless many practitioners will find Dr. Gunson's little book useful in the direction indicated.

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MESSRS. Livingstone's "Catechism Series" has had recently added to it a book on Botany and one on Medicine. These are published at one shilling net. The first named is illustrated, and may be found helpful to the student in mastering the subject. The other, we think, will be of very little value, as it attempts too much in a small space. Both are built up on the question and answer plan. We cannot, however, advise students to attempt mastering the important subject of practice of medicine by means of the Catechism Series.

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THE November number of that conspicuously well edited and instructive journal, *The Sunday at Home*, contains many items which have a relation to the present circumstances of our country. These include "Brave and Noble Deeds," some golden pages from the earlier chapters of the great war, "The North Sea Fisherman: The Manner of Man He Is," "Beneath the Walls of Paris," and "The Pedigree of Europe," an article showing how races are distributed in the war countries. These five articles are illustrated, and throughout the number are sprinkled vignettes of Russian life, with no fewer than five complete stories, two of which are founded on incidents connected with the war.

NEW BOOKS AND NEW EDITIONS.

THE following have been received for review since the publication of our last monthly list:—

ANIMALS' FRIEND SOCIETY (London).
Horses in Warfare. By Ernest Bell and H. Baillie-Weaver. Pp. 14. Price 2d.

ARNOLD, EDWARD (London).
A System of Clinical Medicine. By Thomas Dixon Savill, M.D. Fourth Edition, thoroughly revised. Price 25s.
The Infant, Nutrition and Management. By Eric Pritchard, M.A., M.D., M.R.C.P.Lond. Physician to the Queen's Hospital for Children, etc. Price 3s. 6d.
Mentally Defective Children. By Alfred Binet and Th. Simon, M.D. Authorised translation by W. B. Drummond, M.B., C.M., F.R.C.P.Edin., with an appendix containing the Binet-Simon tests of intelligence, by Margaret Drummond, M.A., and an introduction by Prof. Alexander Darroch. Price 2s. 6d.

BAILLIERE, TINDALL AND COX (London)
Rose and Carless's Manual of Surgery for Students and Practitioners. Ninth Edition. Revised by Albert Carless, M.B., M.S.Lond., F.R.C.S. Illustrated. Pp. 1408 Price 21s.
A Manual of Physiology, with Practical Exercises. By G. N. Stewart, M.A., D.Sc., M.D Edin., D.P.H.Camb. Seventh Edition. Illustrated. Pp. 1132. Price 18s.
Syphilology and Venereal Disease. By C F. Marshall, M.D., M.Sc., F.R.C.S. Third Edition. Pp. 465. Price 10s. 6d.
Indispensable Orthopædics. A Handbook for Practitioners. By F. Calot. Translated from the sixth French edition. By A. H. Robinson, M.D., and Louis Nicole Illustrated. Pp. 1175. Price 21s.
A Brief Review of the Work of Donders. By Ernest Clarke, M D., B.S., F.R.C.S. Pp. 114. Price 2s. 6d.

BRITISH HOMŒOPATHIC ASSOCIATION, THE (London).
The Case for Homœopathy. By C. E. Wheeler, M.D., B.S., B.Sc. Pp. 98. Price 1s.

CHAPMAN AND HALL (London).
A Text-Book of Physiological Chemistry. By Olof Hammersten, with the Collaboration of S. G. Hedin. Translated by J. A. Mandel, Sc.D. Seventh Edition. Pp. 1026 Price 17s.

CHURCHILL, J. AND A. (London)
Dr. Chavasse's Advice to a Wife on the Management of Her Own Health. Revised. By Stanley Dodd, M B., F.R.C.S. Sixteenth Edition. Pp. 348. Price 1s. 6d.

CONSTABLE AND CO. (London).
The British Pharmacopœia, 1914. Pp. 602. Price 10s. 6d
On Pharmaco-Therapy and Preventive Inoculation Applied to Pneumonia in the African Native. By Sir Almroth E. Wright, M.D., F.R S. Pp. 124. Price 4s. 6d.

DORNAN, W. J. (Philadelphia).
Medical and Surgical Reports of the Episcopal Hospital. Vol. 2. Pp. 427.

FROWDE, HENRY, AND HODDER AND STOUGHTON (London).
The Heart in Early Life. By G. A. Sutherland, M.D., F.R.C.P. Pp. 211. Price 6s. net.
Cunningham's Manual of Practical Anatomy. Revised and Edited by Arthur Robinson. Sixth Edition. Vol. 2. Illustrated. Pp. 636. Price 10s. 6d.

GREEN AND SON, WM. (Edinburgh).
The Blood: A Guide to its Examination and to the Diagnosis and Treatment of its Diseases. By G. L. Gulland, M.A., B.Sc., M.D., etc., and A. Goodall, M.D., F.R C.P.E. Second Edition. Illustrated. Pp. 384. Price 15s.

GRIFFIN, CHARLES, AND CO., LTD. (London).
Forensic Medicine and Toxicology. By J. Dixon Mann, M.D., F.R.C.P. Fifth Edition. Revised and Enlarged. By W. A. Brend, M.A., M.B., B.Sc. Illustrated. Pp. 737. Price 18s.

LEWIS, H. K. (London).
Lead Poisoning: From the Industrial, Medical and Social Points of View. Lectures delivered at the Royal Institute of Public Health. By Sir Thomas Oliver, M.A., M.D., F.R.C.P. Pp. 294. Price 5s.

LONGMANS, GREEN AND CO. (London).
Quain's Elements of Anatomy. Eleventh Edition. Editors: Sir E. A. Schafer, LL.D., Sc.D., M.D., F.R S., J. Symington, M.D., F.R.S., and T. H. Bryce, M.A., M.D., in four vols. Vol. 2. Part 2. Splanchnology. By J. Symington. Illustrated. Pp. 392. Price 10s. 6d.

Essentials of Physiology. By F. A. Bainbridge, M.A., M.D.Cantab., etc., etc., and J. Acworth Menzies, M.D.Ed. Illustrated. Pp. 434. Price 10s. 6d.

Macmillan and Co. (London).

Mothercraft for School Girls. By Florence Horspool, L.O.S., with a preface by Lady Mond. Pp. 57. Price 1s. net.

Macmillan Co., The (New York).

The Cancer Problem. By W. S. Bainbridge, A.M., Sc.D., M.D. Illustrated. Pp. 534. Price 17s.

Murby, Thomas, and Co. (London).

Dr. Finny's First Aid: A Note-Book for Ambulance Students. By W. E. St. Lawrence Finny, M.D., M.Ch. Pp. 33. Price 6d.

National Food Reform Association (London).

The Sixth Annual Report. Pp. 125. Price 6d.

Taylor and Francis (London).

Calendar of the Royal College of Surgeons of England. August 1st, 1914. Pp. 400. Price 1s.

Thorn, Alex, and Co., Ltd. (Dublin).

The National University of Ireland Calendar for the Year 1914. Pp. 476.

Wright, John, and Sons, Ltd (Bristol).

Urgent Surgery. By Felix Lejars. Translated from the seventh French Edition by W. S. Dickie, F.R.C.S. Illustrated. Vol. 1. Introductory—Head, Neck, Chest, Spine, Abdomen. Pp. 614. Price 25s.

Obiter Scripta, Throat, Nose, and Ear. By A. R. Friel, M.A., M.D. Pp. 40. Price 2s. 6d.

MEDICAL NEWS & PASS LISTS.

The Royal Medical Benevolent Fund and the War.

In consequence of the war, the College Council Club of the Royal College of Surgeons decided not to hold their usual dinner this quarter, but sent instead a cheque of 30 guineas as a contribution to the Fund. Many dinners and festivals of the kind will be abandoned. We trust that as far as the medical profession is concerned this generous and thoughtful example will be largely followed. The medical profession will certainly be hit hard by the war in many ways, and already special demands upon the Fund are being made of which the following is but one example. A young doctor, only seven years in practice, recently married, volunteered for the war. He was killed in the field within the first week of the war and has left a widow and two children in great temporary distress. This is but an example of many distressing cases, and the Fund will find it difficult to deal with them as liberally as it would desire without special help and generous support.

Royal College of Physicians of London.

At the meeting of the College on Thursday last, the President, Sir Thomas Barlow, in the chair, the following candidates were admitted Members of the College:—

P. H. Bahr, M.A., M.B.Cantab., L.R.C.P. and M.R.C.S., V. Gabriel, L.M.S.Ceylon, L.R.C.P. and M.R.C.S., A. Howell, M.D.Lond., L.R.C.P. and M.R.C.S., E. R. Hunt, M.A., M.D.Camb., L.R.C.P. and M.R.C.S., H. B. G. Newham, L.R.C.P. and M.R.C.S., J. H. Rhodes, M.B.Lond., L.R.C.P. and M.R.C.S.

The following candidates had licences to practise granted to them at this meeting:—

Ahmed Abdel-Al, B. P. Allinson, Lalit Mohan Banerji, G. A. Batchelor, W. A. H. N. Bell, W. F. Bensted-Smith, G. A. G. Bonser, W. E. H. Bull, *P. H. Burton, S. N. Cohen, G. Cranstoun, H. A. Crouch, J. D. L. Currie, †Delphine G. D'Abreu, J. E. Davies, J. Ll. Davies, J. R. Davies, F. H Dodd, H. A. Fawcett, H. L. Garson, J. A. Gregory, D. W. Griffith, S. S. B. Harrison, W. C. Hartgill, †Mary I. Hemingway, A. G. Holman, J. C. Jones, T. R. Kenworthy, G. W. King, L. G. Le Blanc, †Helena R. Lowenfeld, H. W. Maltby, Pestanji Manekji Masina, G. W. Maw, P. U. Mawer, J. A. Montgomery, W. H. Nicholls, A. H. Pemberton, A. C. Perry, B. D. H. Philip, H. R. Pollock, J. S. Pooley, R. N. Porritt, F. G. Prestwich, N. Purcell, P. H. Rawson, G. S. Robinson, C. W. Roe, W. A. Rogerson, W. H. C. Romanis and Pinthu Sai, †Mary Schofield, D. C. Scott, E. W. Scripture, J. H. Sewart, P. de S. Smith, H. N. Stafford, J. F. H. Stallman, R. P. A. Starkie, H. Thomas, J. O. Thomas, W. G. L. Wambeek, J. R. N. Warburton, W. Watkins, T. B. Welch, and D. H. D. Wooderson, W. A. Young.

*Under Regulations dated October 1, 188[illegible]

†Under Medical Act, 1876.

University of Oxford.

At a Congregation held last week the degree of M.D. was conferred upon A. D. Gardner, University.

University of Cambridge.

At a Congregation held last week the following degrees were conferred:—M.D.—A. Feiling, Pembroke; A. Abrahams, Emmanuel. M.A.—H. H. H. Lorenz, St. John's; N. V. Scorer (by proxy), Pembroke; V. W. E. Evans, Trin. Hall; T. P. Ring (by proxy), Queens'; C. C. Dixon, Jesus; R M. Wheeler, Non-coll.

M.B. and B.C.—C. G. H. Campbell (by proxy), St. John's. M.B.—R. A. Ramsay, Caius. B.C.—F. G. Lescher (by proxy), Caius.

Royal College of Physicians of Ireland.

At the annual stated meeting of the President and Fellows of the Royal College of Physicians of Ireland, held on the morrow of St. Luke's Day, the following officers were elected for the coming year:—

President: Dr. E. MacDowel Cosgrave.

Vice-President: Dr. Joseph O'Carroll.

Censors: Dr. J. O'Carroll, Dr. S. T. Gordon, Dr. H. C. Drury, Dr. Gibbon Fitz-Gibbon.

Examiners for the License to Practice Midwifery: Dr. Hastings Tweedy and Dr. Bethel Solomons.

Additional Examiners to take the place of an absent Censor or Examiner: Medicine, Dr. Winter; midwifery, Dr. Sheill; medical jurisprudence and hygiene, Dr. Falkiner.

Supplemental Examiners under the Conjoint Scheme: Biology, Dr. Nesbitt; chemistry, Dr. Lapper and Dr. Falkiner; physics, Dr. Harvey and Dr. Rowlette; physiology, Dr. Earl; pathology, Dr. F. C. Purser; pharmacy, materia medica and therapeutics, Dr. George Peacocke and Dr. J. A. Matson; medicine, Dr. Craig and Dr. Martin Dempsey; hygiene and forensic medicine, Dr. Bewley.

Examiners in Preliminary Education: Languages, Mr. E. H. Alton, F.T.C.D.; mathematics, Mr. R. A. F. Rogers, F.T.C.D.; Irish, Mr. Edward de Valera, B.A.

Examiners for the Diploma in Public Health: Chemistry, Professor Lapper; bacteriology, Dr. Earl; meteorology, Dr. Matson; hygiene, Dr. Martley.

Examiners for the Membership: Practice of Medicine, Dr. O'Carroll and Dr. F. C. Purser; clinical medicine, Dr. Drury and Dr. Travers Smith; pathology and bacteriology, Dr. Earl and Dr. O'Sullivan; obstetrics and gynæcology, Sir Andrew Horne and Dr. Hastings Tweedy.

Representative on the General Medical Council: Sir John Moore.

Representatives on the Committee of Management: Dr. Walter Smith, Sir John Moore, and Dr. Kirkpatrick.

Treasurer: Dr. Bewley.

Registrar: Dr. Kirkpatrick.

Librarian: Mr. Robert Phelps.

Law Agent: Messrs. S. Gordon and Sons.

Agent to Manage the Trust Estate: Messrs. Townshends.

Professor W. H. Thompson, M.D., was elected a Fellow of the College.

The National University of Ireland.

The Senate met on Thursday, October 29th, 1914. The Registrar reported the death on July 19th, 1914, of the Right Hon. Sir Christopher Nixon, Bart., M.D., LL.D., Vice-Chancellor of the University.

The Senate unanimously adopted the following resolution:—"The Senate hereby records its deep regret at the death of the Right Hon. Sir Christopher Nixon, Bart., M.D., LL.D., who, as Vice-Chancellor of the University and as its representative upon the General Medical Council and other public bodies, has rendered invaluable and unfailing service to the advancement of the University since its inception; and the Senate desires to offer to Lady Nixon and the other members of her family its most sincere sympathy with them in their bereavement."

The Registrar reported receipt of a Royal Warrant as follows:—Dated August 19th, 1914, appointing Sir

Arthur Chance, F.R.C.S.I., to be a Member of the Senate in the room of the Right Hon. Sir Christopher Nixon, Bart., M.D., LL.D., deceased.

Dr. Joseph F. O'Carroll was appointed a representative of the Senate on the Governing Body of University College, Dublin, *vice* Right Hon. Sir Christopher Nixon, Bart, M.D., LL.D., deceased, from October 29th, 1914, to January 31st, 1916.

The following were appointed to the offices following their respective names; the appointment in each case to date from October 29th, 1914:—Seaghan P. MacEnri (John P. Henry), M.D., M.A. B.Ch., D.P.H., Professorship of Ophthalmology and Otology, University College, Galway; Miss Adeline English, M.B., Lectureship in Mental Diseases, University College, Galway; Professor Brereton, Lectureship in Operative Surgery, University College, Galway; Joseph F. O'Carroll, M.D., F.R.C.P.I., Professorship in Medicine, University College, Dublin.

Autumn Examinations, 1914.

The following passed in these examinations:—

Medicine (Physiology).—Michael T. MacMahon, M.Sc., M.B., B.Ch., B.A.O., University College, Dublin.

The Dr. Henry Hutchinson Stewart Medical Scholarship.—Patrick T. Murphy, University College, Cork.

National Maternity Hospital, Dublin.

The annual meeting of the National Maternity Hospital, Dublin, was held last week. The report stated that during the year ended in March last there were 1,070 patients admitted to the hospital, and 1,179 treated in their own homes—a total increase of 62 on the previous year, and a gratifying increase was recorded in the amount received from paying patients.

Royal Colleges of Physicians and Surgeons of Edinburgh, and Royal Faculty of Physicians and Surgeons of Glasgow.

The quarterly examinations of the above Board, held in Edinburgh, were concluded last week, with the following results:—

First Examination. — The following candidates passed:—Mahmond Abdel Kader Mofreh, William B. Lawson, Archibald B. MacDougall, Ernest E. Bronstorph and Hassan Amin Madwar, and two passed in Physics and three in Biology.

Second Examination.—The following candidates passed:—Jackson B. Minford, Nicholas J. Laubscher, Henry Morley, Robert Woodside, Frank Jones, John L. West, Paul Vertannes, William U. D. Longford, Clifford Pullan and George M. S. Lindsay, and three passed in Anatomy and five in Physiology.

Third Examination. — The following candidates passed:—Elliot P. Dewar, Gulabrai Teckchand Makhijani, Yeshwant Narayan Kadam, Charles E. Meryon, John R. B. Robb, William C. Bowie, Maurice A. White and Alfred E. Elliott, and three passed in Materia Medica

Final Examination.—The following candidates, having passed, were admitted L.R.C.P.E., L.R.C.S.E., L.R.F.P. and S.G.:—Allan B. Hawkins, Florence W. Heyworth, Norman H. Brewster, William H. O'Grady, John R. Fleming, Gerald C. S. Perera, William C. Fraser, Arthur E. James, Leonard O. Weinman, Arthur A. Murison, John Martin, Gwilyn Ll. Pierce, William S. O'Loughlin and Khusru Roostamji Mehta, and four passed in Medicine, ten in Surgery, 12 in Midwifery and 11 in Medical Jurisprudence.

MEDICAL WAR ITEMS.

A medical man serving with the R.A.M.C. contributes the following to the *Times*:—"We speak of brave men. Yes, these men are brave! If the people of the United Kingdom could see the conditions under which our fellows fight, how they fight, and how they die, I swear that every head would uncover to the colours of any regiment bearing the name of a battle, because that name has been won through the blood of real heroes. For example, some colours will have "Marne" upon them. I know what deeds were done, what lives were given, what wounds were received to have that one name so inscribed. Believe me, the Victoria Cross is won over and over again in a single day! They are brave! What if you were to see how the wounded act after the excitement of battle? They suffer their wounds, great and small, without a murmur; they get their wounds dressed, take chloroform, give consent to have their limbs amputated just as if they were going to have their hair cut. They are gloriously brave. Men who have been in the thick of the fight all day, seen their chums wounded and killed, their own lives not worth a second's insurance, still these men cook their food and go off to sleep, and, most wonderful of all, go back to the thick of it next day!"

In addition to offering the War Office 100 beds—50 at the Walton Home and 50 at the Seaside Branch, Bexhill—for soldiers recovering from wounds or illness received or contracted during the war, the board of management of the Metropolitan Convalescent Institution—at the request of the Assistant Director of Medical Services—has placed 20 beds at the Little Common Home, Bexhill, at the service of the military authorities, for men of the Southdown Battalion of the Royal Sussex Regiment who may require medical treatment.

Oldway House, Paignton, the Devonshire residence of Mr. Paris Singer, has been converted into a private hospital where some hundreds of wounded from the battles of Mons and the Aisne are comfortably installed. The house is entirely decorated by workmen and artists from France, and the sea, though hidden by trees, is but five minutes' walk from the gates.

We are asked to state that the Serbian Government is in immediate need of the services of qualified bacteriologists and physicians experienced in the treatment of epidemic diseases. Conditions of service and remuneration will be made by arrangement. Applicants should address themselves and submit their offers, with references, to the Secretary of the Serbian Legation, 195, Queen's Gate, London, S.W.

The British Red Cross Society has been instructed to purchase and equip, for immediate dispatch to the front, a motor ambulance "out of the profits arising from Sir E. T. Cook's 'Life of Miss Florence Nightingale.'" It is indeed fitting that the name of the great pioneer of nursing service for the sick and wounded should be associated in this manner with the Red Cross work of to-day in Western Europe.

Dr. Mowat, of the ill-fated cruiser "Hermes," which was sunk by torpedoes in Dover Straits on Saturday last, has given some particulars of the foundering of the vessel in the *Daily News and Leader*. "All the officers," he says, "were sitting in the wardroom at breakfast. The wind, sea, and rain were very rough. All at once plates flew about in all directions; their breakfasts were flung into their laps. The officers rushed up on deck and were told that a submarine had attacked them on the starboard side. The impact shivered the ship from stem to stern. There was no panic whatever. The men came sharply up to command. He rushed to the sick bay and saw to the removal of the sick men there. The scenes before the ship foundered were indescribable. Men with broken arms and broken legs were lying about in all directions. I am thankful to be alive," added Dr. Mowat, "yet I will go back as soon as they want me again. This is not my first experience of naval warfare, and your country needs every man of you."

By desire of Queen Alexandra the "At Home" to be held by permission of Mrs. Donald Armour at 89, Harley Street to-day at 3 p.m. on behalf of the Army and Navy Male Nurses will take place as previously arranged. Earl Howe will be present to represent her Majesty instead of Princess Henry of Battenberg.

NOTICES TO CORRESPONDENTS, &c.

☞ Correspondents requiring a reply in this column are particularly requested to make use of a *Distinctive Signature or Initial,* and to avoid the practice of signing themselves "Reader," "Subscriber," "Old Subscriber," etc. Much confusion will be spared by attention to this rule.

Original Articles or Letters intended for publication should be written on one side of the paper only and must be authenticated with the name and address of the writer, not necessarily for publication, but as evidence of identity.

Dr. S. W. (London, W.)—We have dealt with the article in the present issue in the manner that you suggest.

C. J. P. (Birmingham).—The War Office, we understand, have the matter under consideration. An official announcement will shortly be made.

THE ORDER OF ST. JOHN OF JERUSALEM IN ENGLAND.

We have been asked to give publicity to the fact that an appeal is being made by the Ambulance Department of the Order of St. John of Jerusalem for funds to extend its work amongst the wounded in the war by means of a 1s. collection. The individual amount asked for is small, the total sum needed is large. To collect such an amount by a shilling contribution will call for an immense amount of personal service to obtain the desired result. 150 hospitals and convalescent homes have already been established under the auspices of the Order, and supplied with the necessary staff. 209 doctors and nurses have been sent out to the front. Over 5,500 orderlies have been despatched to the Expeditionary Forces, or distributed amongst the ships and naval and military hospitals. 748 cases and bales of medical stores and supplies, including 56,000 articles of clothing, have been sent out to the sick and wounded. A depot for the convenience of the troops has been established at Southampton, where they can obtain food and medical assistance day and night. A number of motor ambulances are being despatched to carry the wounded from the front to the base. Subscriptions and donations may be sent to the offices of the Fund, which are at Marconi House, Strand, where accommodation has been kindly placed at the disposal of the Ambulance Department by the Marconi Wireless Telegraph Co.

J. Ellersly (Falmouth).—We are obliged for the newspaper cutting, but we do not think that the incident calls for editorial comment.

Inquirer.—The paper was published in our issue of May 5th, 1897.

THE WELLCOME HISTORICAL MEDICAL MUSEUM.

A special exhibit of interesting objects and relics associated with naval and military surgery, nursing and ambulance, is being arranged at the Wellcome Historical Medical Museum in Wigmore Street. It will include miniatures, portraits, prints, autograph letters, commissions, and relics of famous naval and military surgeons, surgical instruments and appliances used in naval and military surgery in bygone times, also medical and surgical chests, cases and cabinets, etc., used in war time. Pictures, prints, and drawings of field ambulance work, military hospitals, appliances, and equipments will also be included. The Curator would be glad to hear from medical practitioners who may be willing to lend relics, instruments, or objects of a simiar character. Any objects lent will be treated with the greatest care, and insured against loss or damage. Particulars and descriptions of loans should be sent as early as possible, addressed to the Curator, The Wellcome Historical Medical Museum, 54a Wigmore Street, London, W.

M.D., M.R.C.P.—The question is not one of salary, but, owing to the war, lack of men, to whom the attractions of active service are more pressing than those afforded by resident appointments.

Meetings of the Societies, Lectures, &c.

Wednesday, November 4th.

Royal Society of Medicine (Section of Ophthalmology).—8 p.m.: Cases: Mr. A. Hugh Thompson: (1) Complete loss of Pupillary Light Reflex in one eye, with retention of contraction to convergence. (2) Persistent one-sided loss of Pupillary Reflex in a healthy adult. Papers: Mr. Holmes Spicer: Bubbles in the Anterior Chamber. Mr. H. B. Grimsdale: The necessity of a definition of blindness.

Thursday, November 5th.

Royal Society (Burlington House, London, W.).—Hon. R. J. Strutt, Prof. J. N. Collie, Mr. H. S. Patterson, Mr. I. Masson, Prof. C. H. Lees, Mr. F. O. Rice, Prof. W. M. Thornton, and Mr. E. G. Bilham.

North-East London Clinical Society (Prince of Wales's Hospital, Tottenham).—4.15 p.m.: Clinical Meeting.

Friday, November 6th.

Royal Society of Medicine (Section of Laryngology).—4 p.m.: Cases and specimens will be exhibited by—Dr. Hill, Dr. Lambert Lack, Dr. Dan McKenzie, Mr. Herbert Tilley, Dr. Coubro Potter, Dr. Irwin Moore, Dr. Jobson Horne, etc.

West London Medico-Chirurgical Society (West London Hospital).—Clinical Meeting, 8 p.m.: Cases will be shown by Mr. Aslett Baldwin, Mr. Bishop Harman, Dr. Arthur Saunders, Dr. Grainger Stewart, and others.

Vacancies.

Hulme Dispensary, Dale Street, Stretford Road, Manchester.—Wanted, a House Surgeon, duly registered and fully qualified. Salary £180 per annum. Annual increase £10 to £200, with apartments, attendance, coal and gas. Applications, with testimonials, at once to Honorary Medical Secretary. (See advt.).

House of Recovery and Fever Hospital.—Junior Assistant Resident Medical Officer. Salary £60 per annum. Applications to J. M. Day, Medical Superintendent. (See advt.)

Children's Hospital, Dublin.—House Surgeon. Applications to the Hon. Secretary. (See advt.)

Clifden Union.—Medical Officer. Salary £140 per annum, and £20 a year as M.O.H., with Vaccination Fees. Immediate application to F. King, Clerk of Union. (See advt.)

Manchester Children's Hospital.—Resident Medical Officer. Salary at the rate of £100 per annum. Applications to W. M. Humphrys, Secretary. (See advt.)

Appointments.

Blakeway, H., F.R.C.S.Eng., M.S.Lond., Acting Assistant Surgeon to the Royal Free Hospital.

Gardiner, Harold, M.B., B.S.Lond., F.R.C.S., Acting Assistant Surgeon to the Royal Free Hospital.

Moon, G. B., L.R.C.P. and S.Edin., L.F.P.S.Glasg., Second Assistant Medical Officer at the Surrey County Asylum, Netherne.

Pillman, Miss M. E. C., M.R.C.S., L.R.C.P., Resident House Surgeon at the Royal Free Hospital.

Salisbury, Walter, M.B., B.S.Lond., Resident Medical Officer at Queen Charlotte's Lying-in Hospital.

Smith, W. Maule, M.D.Edin., M.R.C.P.Edin., Medical Superintendent to the West Bromwich and Walsall Joint Unions.

Stuart, J., L.A.H.Dub., Certifying Surgeon under the Factory and Workshop Acts for the Belturbet District of the county of Cavan.

Walsh, Harold V., M.B., B.Ch.Belf., Assistant Resident Medical Officer at Queen Charlotte's Lying-in Hospital.

Births.

Griffiths.—On Oct. 29th, at Wylcwm House, Knighton, Radnorshire, the wife of John A. K. Griffiths, M.B., of a son.

Milner.—On Oct. 26th, at "Kenwood," Goldsmith Avenue, Southsea, the wife of W. A. Milner, M.R.C.S., L.R.C.P., of a daughter.

Rigden.—On Oct. 23rd, at "Lissanoure," Cinderford, Gloucestershire, to Dr. and Mrs. George F. Rigden—a son.

Speirs.—On Oct. 29th, at 232 Old Kent Road, S.E., the wife of T. Orr Speirs, M.D.Glasg.—a son.

Wardleworth.—On Oct. 24th, at St. Nicholas, Sheringham, to Dr. and Mrs. D. Wardleworth—a son.

Marriages.

Mathews—Lentaigne.—On Oct. 21st, at St. Andrew's Church, Westland Row, Dublin, very quietly on account of mourning in the bride's family, James Stanley, elder son of the late Patrick Mathews and of Mrs. Mathews, of Mount Hanover, Drogheda, to Phillis Mary, younger daughter of Sir John Lentaigne, F.R.C.S., of 42 Merrion Square, Dublin.

Menzies—Potter.—On Oct. 31st, at St. George's Church, Headstone, Harrow, Dr. John Louis Menzies, of Aberdeen and Croydon, to Edith May Potter, second daughter of J. I. Potter, Esq., of Harrow.

Newsholme—Cooper.—On Oct. 31st, at Westcliffe Congregational Church, Essex, Henry Pratt Newsholme, M.A., M.B., of 112 Ashley Gardens, Westminster, to Kathleen Denness Cooper, of Highcliffe, Leigh-on-Sea.

Ryle—Scully.—On Oct. 23rd, at St. Pancras, John Alfred Ryle, M.B., R.A.M.C., S.R., eldest son of Reginald John Ryle, M.D., J.P., of Brighton, to Miriam Power, second daughter of William Charles Scully, C.C. and R.M. of Port Elizabeth.

Deaths.

Chisnall.—On Oct. 24th, at Poperinghe, Belgium, the result of shell fire, Lieutenant George Henry Chisnall, M.B., F.R.C.S., attached to 1st Cameron Highlanders, son of Charles H. Chisnall, Frating Abbey, Essex, aged 28.

Crowther.—Killed in action on Oct. 18th with British Expeditionary Force, as Motor-cycle Despatch Rider, Sidney Nelson Crowther, M.R.C.S., L.R.C.P., of Netherne Asylum, Merstham aged 39.

Grant.—On Oct. 20th, suddenly, at Inverness, John MacPherson Grant, M.B., C.M.Edin.

Rintoul.—On Oct. 21st, Lieut. David Wylie Rintoul, R.A.M.C., elder son of D. Rintoul and C. B. Rintoul, 26 College Road, Clifton, aged 25.

Sydney.—On Oct. 28th, Henry Sydney, M.D., of Strathclyde House, Hounslow.

Trotter.—On Oct. 24th, at Sunny Bank, Holmfirth, Huddersfield, Charles John Trotter, M.R.C.S., L.S.A., aged 75

Wallis.—On Oct. 27th, at St. Minver, Leiston, Suffolk, Edward Darby Wallis, L.S.A., M.R.C.S., aged 67 years, youngest son of the late Preston Wallis, Esq., of St. Petrocks, Bodmin.

Wardleworth.—On Oct. 24th, at Havre, Lieut. Douglas Wardleworth, R.A.M.C., of St. Nicholas, Sheringham, while on active service.

HULME DISPENSARY.

DALE STREET, STRETFORD ROAD, MANCHESTER.

WANTED, a HOUSE SURGEON duly registered and fully qualified. Salary £180 per annum. Annual increase £10 to £200, with apartments, coal and gas. Applications, with testimonials, at once to Honorary Medical Secretary.

THE MEDICAL PRESS AND CIRCULAR.

"SALUS POPULI SUPREMA LEX"

VOL. CXLIX. WEDNESDAY, NOVEMBER 11, 1914. No. 20.

NOTES AND COMMENTS.

Regulations for Female Inebriates. THE alleged excessive drinking by women at the present crisis is clearly of considerable social importance, and, if existent, its suppression is much to be desired. At the same time, as pointed out in our editorial columns a week ago, to deal with it on lines of sex distinction may have a harmful effect, inasmuch as it might readily arouse in the militant female camp passions that for the present have been happily allayed. In the present instance surely it would be wiser to let well alone, and extend to women precisely similar freedom and similar limitations in the matter of alcoholic indulgence to those permitted to men. It is to be hoped that such considerations may be laid before a kind of informal committee which has met to discuss the matter. This somewhat curiously constituted body is composed of the Commissioner of Police, of Alderman Edward Johnson, chairman of the London Central Board of Trade Protection Societies, and of Mr. Frank P. Whitbread, representing the London Brewers' Council. It has been agreed by them that all licensees within the Metropolitan Police district should be asked early in the present week no longer to serve women with intoxicating liquors before 11.30 in the forenoon. This request at once thrusts into prominence the question of sex privilege in a personal and offensive form. If it be inadvisable in the interests of the community that women should consume alcohol before 11.30 a.m., on what principle can it be right that men should be permitted to drink at public-houses before that hour? What is sauce for the goose should in this case equally be sauce for the gander.

A Non-representative Committee. WHY should the handling of a delicate and weighty matter of this kind be left to a Commissioner of Police, a trades union representative, and a brewer? What sort of wisdom is one to look for from so grotesque an amalgam of councillors? Why should not responsible representatives of other callings have had a voice in an issue of this social complexity and importance? It would be easy to get, say, the help of a Member of Parliament, of a London County Councillor, of an experienced social philanthropist, and, above all, of a broad-minded leader of the non-militant women, as well as of some distinguished woman who is not implicated in any Suffrage movement. We venture to assume that a committee thus constituted would in all probability decline to advise exceptional licence regulations restricted to one sex alone, or, if such restriction were approved, it would be accompanied by a full statement of the special facts and considerations that led to a decision imposing special sex distinctions. The principle involved—namely, that of public-house drinking in morning hours—it may be well to add—has our complete and hearty approval as a common-sense step highly desirable in the interests of the public health. If it be resolved to persevere in the effort to render the people sober by Act of Parliament, that end is more likely to follow impartial dealing with both sexes than by arousing a sense of class injustice by one-sided measures of control aimed at women only. Nor is it to a combination of police, trade unionism, and the brewery interest that the reformers would look for the wise conduct of the temperance campaign.

The Police Called in by the War Office. THE War Office is certainly doing its best to enforce high moral standards upon soldiers' wives—that is to say—upon the wives of non-commissioned officers and men. The question of drink is apparently left to the licensing authorities and the magistrates—while other ethical lapses are to be dealt with in future by the police. A memorandum has been issued to the various Chief Constables with a covering letter from the Home Office, directing that the police shall assist in withholding separation allowances to wives or dependents in the event of serious misconduct of recipients. The "unworthy" are defined as "women guilty of serious misconduct, e.g., cases of immorality definitely established, conviction of criminal charges, or gross negligence of children." It is difficult to believe that even War Office ineptitude will venture to carry a crude and offensive infringement of the rights of the citizen into effect. Experience has shown again and again that the police are the last persons in the world to whom it is advisable to entrust the surveillance of minor offences. It would be difficult to imagine any deadlier blow to the recruiting of our new army than the placing of soldiers' wives under the supervision of the police. More than that, they are to be judges as well as investigators, for without judgment founded on evidence can the police determine whether any specific charge of immorality is or is not "definitely established."

A Good All-Round Principle. NOR is it altogether easy to comprehend why "misconduct," which is not flagrantly criminal, should rob the recipient of money hardly won by the soldier fighting at the front. It is certain that in the case of the withholding of the means of sustenance, an equivalent sum will have to be found by the already over-burdened ratepayers, who now have to keep a large number of soldiers' wives and dependents whose pay has not been forthcoming, owing to the unbusinesslike methods and niggardly policy of the War Office. The married recruit in future may look forward to police supervision for his household in addition to incorrect estimation and irregularity of allowances. The public health is closely involved in this matter, affecting as it does the environment of millions of families. Another important social aspect is that of class inequality, for if it be necessary for the safety of the community that the War Office should regulate the morals of the soldier's wife, it follows that similar conditions should be imposed upon all ranks of the service. That, at any rate, will be the contention of a democratic army, a description that applies to Lord Kitchener's new force. It would be a pity were the splendid enthusiasm of our new troops to be marred by War Office ineptitude, and it is to be hoped that Parliament will turn its attention to the Military Pay Department. If the State is to control the morality of the soldier's household —well and good—but the principle will have to be applied to all recipients of dependents' pay and pension from Field Marshal to drummer boy if we are to steer clear of the quicksands of class inequality.

Contract Sweating for Army Work. It is a short-sighted policy indeed that permits sweating by employees carrying out Government contracts for the Army. It simply means a small saving in expenditure at the cost of the ratepayers, who will assuredly be called upon in the long-run to support the disabled workpeople who have been living in a state of chronic semi-starvation owing to their meagre wages and long hours of labour, often under bad sanitary conditions. A recent report of the Public Health Committee of the Bethnal Green Borough Council shows that homeworkers in the East End of London are being scandalously sweated by Army contractors. Among the cases quoted are the following:—"Making and finishing blue serge tunics—2s. 6d. each, complete finishing; thread and silk purchased from the firm. Black canvas kit bags—2s. 6d. per dozen; thread purchased from the firm. Fawn jean kit-bags—10d. per dozen; thread found. Khaki haversacks—2s. 6d. per dozen; own thread has to be purchased from firm at 6½d. per spool of 2oz.; two spools make three dozen bags. Jean kit-bags—4s. 6d. a dozen, finished; own cotton and thread have to be purchased. Finishing khaki trousers—2s. a dozen; own thread to be purchased. Trouser finishing—2½d. per pair; worker has to buy cotton at 2½d. per spool and thread at 4¾d. per spool (average cost 1s. 6d. weekly). Making kit-bags of brown canvas—1s. 9d. per dozen finished; thread supplied by employee."

The War Office and the Middleman. It is hardly to be wondered that Bethnal Green considers that the prices paid in each of these cases are inadequate, and they add: "We have no grounds for suggesting, nor do we wish to suggest, that the Government is in any way responsible for these prices; but they appear to us to be due to the recent relaxation of the Government rule that Army work shall not be performed by home workers. The result in these cases appears to have been that the work has passed through the hands of so many middlemen or sub-contractors that the low wages mentioned must be paid to the persons actually performing the work in order to provide a profit for the persons who give out the work to the home worker." The committee were advised that the matter was one for the Office of Trade Boards; and the particulars set out above, with other details, have been forwarded to that Department with the request that any action which is possible in the matter shall be taken. It is to be hoped that even amid the enormous pressure to which the War Office is subjected by the conduct of a great war something may be done to remedy the great wrong that is being done to the sweated workers of East London and elsewhere.

The Medical Roll of Honour. The casualties amongst all ranks of the Royal Army Medical Corps have, unfortunately, been considerable during the last week. We have to record the death of Captain R. C. G. M. Kinkead, R.A.M.C., who has been killed in action. A full obituary notice of the deceased officer appears elsewhere in our columns. Officers wounded:—Captain H. G. Gibson, R.A.M.C., and Lieutenant C. W. B. Littlejohn, R.A.M.C. News has been received of the whereabouts of Captain W. Egan, R.A.M.C., who, it appears, is a prisoner at Crefold. Captain T. B. Bennett, R.A.M.C., is unofficially reported to be lying wounded in the Casino at Boulogne.

LEADING ARTICLES.

THE PROPOSED BELGIAN RELIEF FUND.

Our readers will remember that our issue of November 4th contained a letter from Dr. Macnaughton Jones, calling attention to the dire distress amongst the medical men of Belgium, and enclosing a letter from Professor Jacobs, of Brussels. The latter announced that a provisional Belgian Committee had been formed, with the double object of securing immediate relief for the doctors and pharmacists deprived of their means of livelihood, and of establishing an annuity fund for the widows and orphans of those killed during the war. It was stated that the details of the scheme would be arranged by a Central Committee sitting in London, representing the United Kingdom. Dr. Macnaughton Jones, on receiving the promise of help from various leading men, especially in Ireland and Scotland, sent the appeal from Brussels together with a covering letter to the *British Medical Journal* and the *Lancet*, but neither journal has so far published the communication. Doubtless owing to an oversight, no invitation to join the the British Committee has been extended to the Medical Press and Circular, although it is announced that there is power to add to its number. The editor of the latter journal is to some extent encouraged by the fact that during the last few months there has been a large increase of readers, among whom Dr. Jacobs' appeal on behalf of Belgium has been circulated. The needs of the Belgian medical men are urgent; many of them are destitute, and have no means wherewith to support their wives and families. Their homes are desolate and their practices dissipated into thin air. A large sum of money is wanted for their relief, one portion to minister to present needs, and another to restore them later to their homes and enable them to commence life afresh. The appeal is now made first of all to the medical men of the United Kingdom to come to the aid of their Belgian *confrères* in their sore need. We ask our readers, then, to send subscriptions through the Medical Press and Circular in answer to the appeal of Professor Jacobs in our issue of last week. It should be clearly understood that our journal will not administer any of the funds entrusted to its care. All money will be handed over to the Central Committee which has been formed in London. Subscriptions of any amount, great or small, will be gratefully acknowledged by either the London Editor (8 Henrietta Street, Covent Garden, W.C.), or by the Irish Editor, 29, Nassau Street, Dublin. In a matter of this kind we shall endeavour to aid to our utmost the efforts of the Central Committee in attaining the object to which we reflect with no small satisfaction we were the first to call attention. In a crisis such as that now confronting the Allies, it becomes a bounden duty to fly to the succour of those who have lost their all in their heroic stand against a common enemy.

CURRENT TOPICS.

The Relief Fund for Belgian Medical Men —An Appeal to Mr. Asquith.

In our issue of November 4th we published an appeal from Professor Jacobs, of Brussels, on behalf of the medical men and pharmacists of Belgium. His letter was addressed primarily to the medical profession of the United Kingdom. It shows that some of his countrymen for whom he appeals are in dire distress, and he has since conveyed to us by word of mouth a more detailed story of their sufferings and anguish. Bereft of home, of patients, of income, they have become wanderers with their wives and families upon the face of the earth. Many of them are in England without means, and dependent on that hospitality which is being freely meted out by our countrymen. A Relief Committee has been formed for the purpose of raising funds, in the first place from the medical men of the United Kingdom. It is difficult, however, to see how the latter can adequately assume the burden, for many of them are away on war duty, while others have already emptied their purses and given freely to other relief agencies rendered necessary by this Great War. Under these circumstances, we appeal strongly to Mr. Asquith's government to make an immediate grant in aid of Belgian medical practitioners. Sooner or later Parliament will be called upon to come to the financial aid of Belgium. An immediate grant of, say, £250,000 would enable the Central Relief Committee to tide over immediate distress and, later, to reinstate some, at any rate, of the Belgian doctors in their homes—to use the words of Dr. Jacobs—"pour recommencer la vie." The value of such help at the present moment would be incalculable, for the health of the whole Belgian population must ultimately depend upon medical administration. It is to be hoped that the friends of Belgium will urge the vital necessity of this monetary aid upon Parliament in the best interests of the Belgian people. A certain proportion of Belgian medical men might be engaged by our War Office for military service and for attendance upon their refugee countrymen now in the United Kingdom. Lastly, we have Dr. Jacobs' own assurance that his medical *confrères* would regard any monetary help at the present moment of tribulation as a debt of honour, to be repaid in due season with no empty tribute of thanks, but with the strong and enduring gratitude that one associates with brave men. It is becoming more and more difficult for private benevolence to stem the torrent of distress arising from the war, but it is still possible for Parliament to play the good Samaritan to the medical men of Belgium. Therefore again we ask Mr. Asquith and his colleagues to carefully consider our suggestion as to an immediate grant in aid.

Red Hair.

Those of us who have not got it thank the gods or other responsible eugenists that there is red hair in the world. It adds to the gaiety of nations. Like Falstaff, the owner of red hair is not only witty in himself, but the cause that wit is in other men. And the other men feel a spice of danger in the application of their wit, for red men are notoriously hot-tempered and resentful of personalities—ginger for pluck. Eugenists have heard these legends and with their well-known enthusiasm have investigated them on a basis of pure science. They claim to have found some facts. Red hair is said to be always hereditary, and though it may lie dormant for several generations it never arises anew. Rufosity is a Mendelian "recessive." Red children are rarely born where one parent is dark and the other fair, but they are almost invariable if both parents are red. In England they are alleged to be no more fiery in temper than the rest of the population, but according to *American Medicine* this is not the case in the United States. The reason is interesting. On the theory that there are two or three pigments which in various mixtures are responsible for all human colourings, the red-haired man is a defective. He is only one degree removed from the albino who has no colouring matter but the hæmoglobin of his red cells. Consequently, in hot climates the red-haired man, who has only one pigment, is insufficiently protected from excessive light which irritates him, keeps his nerves on edge and otherwise annoys him and lessens his efficiency. This, like a great deal of the more sensational eugenistic work, is speculation minus statistics. It may or may not be true. We welcome the industrious investigator of unconsidered trifles. His work may help to soothe the amaranthine auburn. It will be a novelty for him to have his pigmentation taken seriously.

Canine Distemper and Human Poliomyelitis.

During the past few years several cases have been described by Batten, Holmes, Flexner, and Clark, in which symptoms of paralysis have occurred in dogs simulating poliomyelitis in human beings. On close investigation it has been found that certain nervous affections met with in horses, sheep and guinea-pigs present histological features not unlike those of infantile paralysis in man. In the *Journal of Pathology and Bacteriology*, Drs. J. P. M'Gowan and James W. Dawson, of the Royal College of Physicians' Laboratory, Edinburgh, have recorded their observations upon cases of undoubted distemper in dogs exhibiting nervous symptoms, and they have compared the histological changes found in them with those met with in human poliomyelitis. Following an attack of distemper, the nervous system may be affected in three distinct ways. In one group of cases the symptoms are those of acute generalised convulsions of sudden onset, death ensuing in a short time from status epilepticus. Intense engorgement of the cerebral vessels is seen, but no meningitis. In another type the symptoms are choreiform, indicating meningeal irritation, and in two cases meningitis was found and infiltration of the vessel-walls and brain substance by cells of a lymphoid type. The third group is characterised by spinal manifestations, the hind limbs being in a condition of flaccid wasting paralysis. *Post-mortem* the spinal grey matter is seen to be infiltrated with lymphoid and compound granular cells. There is positive evidence that the distemper bacillus, described by Dr. J. P. M'Gowan, can produce in culture a powerful nerve toxin. This organism was obtained from the respiratory tract of five of the cases, and it is well known that in man the virus of anterior poliomyelitis may be present in the nasal mucous membrane. The comparison between the human and the canine affections is an interesting one and it may possibly throw further light upon the ætiology of other obscure diseases.

Royal College of Physicians of Ireland.

We publish in another column a letter from the Registrar of the Royal College of Physicians of Ireland to which we wish to direct attention. The Registrar is attempting to make in the College a collection of portraits of past presidents, and he gives a list of presidents of the last century of whom portraits are lacking. It is probable that oil paintings of most of these are in existence, and it is likely that such paintings retain but little interest for their present owners. To the College, on the other hand, they would be very valuable as forming part of a series. In cases where the owners are unwilling to part with such memorials, they can have no objection to photographs of the oil paintings being taken for preservation in the College. We understand that the Registrar is willing to arrange for the taking of such photographs on being informed of the present location of any of the pictures sought. We hope that if any of our readers can give the College any help in this matter they will do so. While drawing attention to this appeal of the Registrar for portraits of past notables of the Irish profession, we may mention an appeal recently issued by the Librarian of the College. The Librarian is endeavouring to make in the College as complete as possible the collection of medical books and tracts published in Ireland, as well as of medical books by Irish writers published elsewhere. Our readers may be able to help in this also, and we commend the appeal to their goodwill.

National "Nerves."

The way in which our nation has braced itself for the supreme struggle thrust upon it has roused the admiration even of those who least expected it. Those who remembered the follies and boastings, the depressions and the swaggerings, of our people in the days of the South African War, have learned that the England of to-day is a stronger and a better country than the England of fifteen years ago. On the whole, the people are determined without fear or fuss to go through with the business in hand, no matter what sacrifices may be required. Nevertheless, there are signs of "nerves" from time to time which require to be noticed in order to be checked. The disease of the crowd which at the present moment shows as "nerves" might, when the danger seemed more pressing, as, for instance, if an invasion were to occur, easily develop into national panic. The "spy fever" which, more particularly in the early days of the war, was such an instance, was one symptom of "nerves." The most glaring instance was the recent driving from official life of one of our leading sailors, to whose initiative and foresight we owe, in no small measure, the present security of our shores. Such action of the Government is a direct encouragement to the development of "nerves" among the people. We find another evidence of unhealthy "nerviness" in a long letter which Mr. H. G. Wells contributed to a recent issue of the *Times*. Mr. Wells tell us the terrible things he and his class will do if and when the Germans land in England. If the Government do not give him a rifle, and teach him to use it, he will use a shot-gun, and, no doubt, if he cannot get even a shot-gun, he will throw stones. If the military experts tell him that he is not to do any of these things, then he will shoot the experts. We believe that the supreme duty of the citizen at the present moment is to keep cool. Most sensible people who want to be really useful can find work to do without fussing themselves and their neighbours into a state of "nerves." The watchword at present and till the war is over should be "Steady, men, steady."

Sausages.

The sausage has long functioned vicariously for the populace. It typifies the pantomimic clown, Teutonic *Kultur*, and kindred ridiculous pomposities. There are sausages and sausages—small ones that are a bare mouthful, and gigantic fellows whose very section satisfies the starving. The essential characteristics of a sausage are few, comprising chiefly a constant shape and a variable interior. The shape is typical; unlike the multiparisoned ethmoidal bone, the sausage can only be compared with itself or its next-door neighbour. In inverse proportion to the constancy of its shape is the certainty of its interior. The sausage-maker is notoriously fickle. He chops and changes; and his raw materials, if the tongue of the people wags true, would make a fair assortment of samples for a traveller in zoological gardens. The glorious uncertainty of the interior is of the essence of the sausage, no less than the harmless necessary gut that covers it. A sausage to be worthy of the name must have its origin "wrop" in mystery and its interior in small intestine. So we have written, and so, too, we thought. Not for the first time disillusion awaits us. There is an invention for covering sausages with wood pulp. Shortly, bleached sulphite wood pulp is mercerised by caustic soda, treated with carbon disulphide, added to water, and allowed to swell. The result is a thick, viscous solution which is moulded into tubes, passed into a salt solution, and converted into a yellow jelly. Ultimately it is cleaned, dried, rolled up, and shipped to the sausage shop. It is hard to discuss such an iconoclastic proposal calmly. Since our childhood's first sausage we have clung with affection to its skin. We were content to remain in ignorance of the meat lest worse befall us, but we thought the skin unchangeable as that of the Ethiopian. We must grin and bear it. Sausages we must have. They supply food for our stomachs, material for our comedians, and epithets for our enemies. The inventor has us in the hollow of his hand. We tremble and are still. The *wurst* is yet to come.

Red Cross Workers in General Hospitals.

In our last issue we noted the decision of the Board of Management of the Royal Victoria Hospital, Belfast, not to admit women holding first-aid certificates for short periods of training in the hospitals. We know that other hospitals have decided differently, but we believe that the Belfast Board is right. There is not at present, nor is there likely to be, any dearth of properly trained nurses. The War Office has a reserve of at least 1,500 trained nurses on its list ready to undertake any work that may be required of them. There is not likely to be any national need for such crude material as a course of first-aid lectures and three weeks in a hospital is likely to produce. Moreover, no training of any value can be given to these short-term probationers without interference with what is one of the essential duties of a general hospital—the training of medical students and nurses. We do not overlook the fact that even a superficial knowledge of nursing is of some value to a woman in her ordinary household sphere of duties. The danger is that a young woman, armed with her first-aid certificate and her certificate of "hospital training," fancies herself something between a trained nurse and a medical practitioner. She becomes a public danger. We were particularly interested in the perusal of the diary of a temporary probationer recently published in the *Spectator.* The young woman recounted her experiences and feelings, and at the end of her fortnight's or three weeks' training complacently noted that she was able to hold her own with probationers who had six months' experience. She added—quite unnecessarily—that she had now confidence in herself. We do not gather, however, that there was any ground for such confidence.

The Choreic Voice Sign.

New clinical observations are always of interest, especially when they assist in or help to confirm the diagnosis of disease. Dr. Walter B. Swift, of Boston, (*a*) has reported a change in the voice in chorea, as registered by means of the vocal kymograph, which he believes is constant in cases of this disease. Briefly, the signs consist of a rise in pitch and an increase in the intensity of the voice. These modifications of vocal utterance escape notice in ordinary conversation, but with prolonged vocalisation they become manifest. Twenty cases of chorea were subjected to a series of twenty-seven tests, 540 tests in all. The changes were not always in proportion to the amount and extent of choreic movements as seen. They were always more marked in the long vowels, less so in the whispered voice, whistling, blowing out air or holding the breath. The consonants showed no change except when prolonged. Lack of articulatory control will contribute to slight changes in the voice, but the characteristic voice-sign, according to Dr. Swift, occurs in the open prolonged sound of "a," as in "ah," and it is, therefore, suggested that this vowel should be used as a routine clinical test for eliciting the new sign of chorea.

Food Delivery.

We are very inconsequential in our fastidiousness about our food. What the eye does not see the imagination can ignore. We are very particular about ready-made packed foods—"untouched by hand," but we do not seem to mind what happens to some of our more common comestibles before they reach us. We have learnt a certain amount. We insist on pure water, and some of us are particular about our milk. Anyway we know the dairy inspector is looking after us. But we do not worry about our meat and bread. Both may be and usually are exposed to gross dirt and bacterial invasion both in the retailer's shop and in the streets during delivery. The meat is not so important. It at least is superficially sterilised in the cooking. But the bread is not. The loaf lies jumbled with its fellows in the baker's van. The driver jumps from his seat and proceeds to paw over his wares with his unthinkable hands. We frequently see loaves rolling in the highway to be gather up, freed from gross dust and ultimately ingested. It is a disgusting process if we think about it. Bread should be wrapped in waxed paper as soon as baked, and not be unwrapped till it is wanted. The baker's objection to this is, that the quality of the bread deteriorates. It is an unsound objection. Investigators in America—where the people really are ahead of us in some few things—arrive at contrary results. They find that wrapped bread actually keeps fresh for several days longer than *in puris naturalibus.* There is, then, no reason why we should have dirty bread. Apparently we do not mind or we would not have it. If the baker's pocket was touched he would quickly supply our demand. But we are content to go on as we are, and as long as we maintain this steadfast inertia nothing will be done. After all, we get the bread we deserve.

(*a*) American Journ. of Dis. of Children, October, 1914.

PERSONAL.

Dr. Herbert M. Cargin, M.D.Edin., D.P.H., has been appointed Medical Officer of Health of West Hartlepool.

Drs. S. W. F. Richardson and H. A. Moffat have been appointed Additional Honorary Surgeons to the New Somerset Hospital, Capetown.

Dr. John Barlow, M.D.Edin., F.F.P.S.Glasg., has been re-elected President of the Royal Faculty of Physicians and Surgeons of Glasgow.

Dr. John P. Henry (MacEnri), M.D., B.Ch.Dub., has been appointed Professor of Ophthalmology and Otology in University College, Galway.

Dr. L. B. Cane, of Peterborough, who is on active service with the Army Medical Corps, has been attached to the military hospital at Cairo.

Mr. A. Ernest Maylard, M.B., B.S.Lond., F.F.P.S.Glasg., has been elected President of the Glasgow Medico-Chirurgical Society for the ensuing year.

Lieut.-Colonel F. J. Greig, reserve of officers, Royal Army Medical Corps, has been appointed Assistant Director of Medical Services for the Ulster Division.

Dr. Ll. McIntyre Weeks, of Redcar, late of Willington, was the recipient of a suitable presentation the other day from the colliery officials in the district upon the occasion of his marriage.

Dr. J. Richarson Marrack, M.A., M.B., B.C. Cantab., 1st class National Science Tripos, Part I., 1908, 2nd class Part II., 1909, has been elected to a Fellowship at St. John's College, Cambridge.

We are glad to learn that Mr. Littler Jones, Surgeon to the Liverpool Royal Infirmary, one of the medical men on board the ill-fated hospital ship *Rohilla*, which was wrecked off Whitby on October 30th, is progressing favourably after suffering from shock and exposure.

The following officers of the Royal Army Medical Corps have been decorated by the President of the French Republic with the Legion of Honour, with the approval of the King, for their gallantry during the operations between August 21st and 30th, 1914:—Croix d'Officier, Major S. L. Cummins, M.D. Croix de Chevalier, Captain S. E. Lewis, M.B., Captain J. T. McEntire, M.B., and Captain H. S. Ranker, M.B. (killed in action).

CLINICAL LECTURE
ON
RECENT METHODS IN DERMATOLOGY. (*a*)

By G. NORMAN MEACHEN, M.D., B.S. M.R.C.P. Lond. and Edin.,

Physician to the Hospital for Diseases of the Skin, Blackfriars; Dermatologist to the Prince of Wales' General Hospital.

Ladies and Gentlemen,—If the advances made during the last few years in our knowledge of diseases of the skin, apart from those due to syphilis, have not been startling, we may comfort ourselves with the fact that dermatology has, at at any rate, not lagged behind the other specialities of medicine. The link that binds dermatology to general medicine is largely a clinical one, but we have the great advantage both in diagnosis and treatment of being able to see what we are doing.

Excluding the Wassermann test and the luetin reaction of Noguchi, we have only the tuberculin test, whether injected into the patient or applied to the skin after the manner of Moro or Von Pirquet, that really deserves the title of specific. Considering the frequency with which a tuberculous focus is present somewhere in the body, a positive reaction to tuberculin should always, I think, be accepted with caution. Taken in conjunction with other evidence, it is useful in helping to confirm the tuberculous nature of a doubtful skin eruption. With regard to tuberculin-therapy, it may be said that if the practitioner wish for quick results he will be disappointed, but if he be prepared to peg away slowly, using, by preference, the bi-weekly gradually increasing dose, he may expect to see some improvement, if not an actual cure of a lupus. By the method of obtaining slight reactions only the chief objection to the use of tuberculin has been removed. At the recent meeting of the Dermatological Section of the British Medical Association, held at Aberdeen, Norman Walker related some successful cases of lupus treated with the local application of a 5 per cent. tuberculin ointment, and he said that he had not observed any marked local reaction.

The use of vaccines in general may justly be called specific, for what can be more so than the inoculation in a case, say, of sycosis, with a vaccine from a culture taken from the patient's own pus? In all staphylococcic infections of the skin, especially in furunculosis, vaccine-therapy generally yields good, and sometimes brilliant results. The method of Whitfield, described at the International Congress of Medicine in 1913, of giving 250 million staphylococci as an initial dose, increasing it rapidly, appears to me to be the method of choice. At the same meeting, Gilchrist, narrated his experiences with vaccines in skin diseases, and he finds that in the case of acne injections of a vaccine of 10-20 million of acne bacilli as an initial dose, repeating the dose or slightly increasing it after the negative phase has passed, are the most efficacious. Some degree of local immunity seems to be produced by the application of ointments made up of various micro-organisms, such as staphylococcus albus ointment, 10 per cent. in cold cream, in cases of seborrhœic eczema. Such methods seem reasonable and are worthy of trial.

The Role of Physical Therapeutics.

The number of physical agents that have been employed of late years in the treatment of diseases of the skin is very numerous. One naturally thinks of X-rays first, and for the treatment of lupus vulgaris of the ulcerating type, rodent ulcer, and skin cancers, and for producing epilation, for ringworm of the scalp and sycosis, this agent remains one of the best. Now that we have better means of measuring the dose, injury to the skin is becoming progressively rarer, though there are cases still in which a delayed radio-dermatitis may appear, or where the hair fails to grow again after epilation.

In radium we have a remedy which far exceeds the X-rays in potency, and in the relief of itching and pain. Thanks to Wickham, Degrais, and other workers, sufferers from severe pruritus, chronic eczema, with lichenification, new growths of the skin, lupus, angeiomata, nævi, rodent ulcer, and other forms of malignant disease of the skin, have a reasonable chance of receiving benefit or lasting cure.

The Kromayer lamp, on account of the shortness of exposure required—about ten minutes—and the larger size of the area treated, bids fair to become a serious rival of, if not actually to supersede, the Finsen light. The ultra-violet rays from a mercury-vapour lamp, as originally employed by Kromayer and Nagelschmidt, have given excellent results in alopecia areata and in severe rosacea of a disfiguring type.

The good effects of hot air in dermatological therapeutics are seen in the radiant-heat treatment of localised pruritus or chronic eczema. The "douching" of hot air by means of electricity is useful for limited areas of disease. More recently we have the method of through-and-through warming of the tissues, or *diathermy*, which, in the hands of Nagelschmidt, has given good results in cases of lupus, nævus, and rodent ulcer.

Many of these more advanced adaptations of light and heat rays demand the use of expensive apparatus, and are, therefore, only available for the favoured few. If it be desired to obtain the benefits of local hyperæmia, one can employ Bier's suction cups at a small cost. These are small exhaust cups of glass, connected at one end with a rubber tubing. The size of the cup should correspond with that of the area to be treated, and only sufficient exhaustion should be produced so as to cause it to adhere. The cup is kept *in situ* for five minutes, released, and re-applied after three minutes' interval for a further period of five minutes, for half to one hour, once or twice daily, according to the effect produced. Small patches of alopecia areata and most acne pustules may be satisfactorily treated by these suction-cups, though they will seldom take the place of local remedies entirely.

Solid Carbon Dioxide.

The benefits of hyperæmia, combined with more or less destruction of tissue, can all be obtained by the use of what I may venture to call the most generally useful agent employed for this kind of work in the whole range of dermatological therapeutics. Introduced by Pusey, the solid crayon of

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(*a*) Delivered at the North-East London Post-Graduate College, August 6th, 1914.

frozen carbonic acid with a temperature of — 79 degs. C. combines many of the properties of radium and X-rays without the expense of the one and the disadvantages of the other. Exactly how one prepares the solid snow is immaterial; I, for one, am fond of the Goosmann apparatus, where the receiver of the frozen gas also acts as an applicator. For nævi and moles it is unrivalled, while many other skin affections are benefited by it, notably rodent ulcer, which it destroys in a very few applications, and also lupus erythematosus of the discoid variety. Warts and old-standing patches of lupus vulgaris require, of course, a longer application than that needed for superficial nævi. I do not think that solutions of the snow in acetone or ether possess any real advantage over the ordinary solid crayon. From the ease with which its application can be controlled it will be acknowledged that frozen carbon dioxide is superior, and, of course, far less costly, than liquid air. In the case of very young infants the exposure, and also the pressure, must necessarily be much less than in the case of adults.

Ionic Medication.

The researches of Leduc, Lewis Jones, and others, upon the electric penetration of ions into the epidermis has encouraged dermatologists to employ the principles of electrolytic conduction of anions and kathions for the treatment of cutaneous disorders. The essentials of success in ionisation are (1) to employ a weak solution of the substance chosen—seldom more than one to four per cent., (2) to protect the bare skin from the pole of introduction by several layers of moistened lint, (3) to see that no abrasion or irregularity of surface exist upon the area to be treated, (4) all oily and fatty matter must be removed from the skin by alcohol or ether before commencing the treatment. Zinc is a favourite metal for ionisation, and a two per cent. solution of the chloride or a four per cent. solution of the sulphate is used for moistening the pad beneath the positive electrode, in this case made of zinc, placed over the part to be treated. A current of 2-3 milliampères per square cm. is allowed to pass for ten to twenty minutes, the indifferent electrode being placed in a basin of salt water in which the patient immerses one hand. A sitting is given once a fortnight, and in the case of a patch of lupus vulgaris, for which this method is eminently suitable, is repeated once a fortnight. In the case of rodent ulcer, the positive electrode may consist of a zinc needle which can be introduced beneath the skin into the diseased tissue.

Ionisation with salts of mercury, copper, or zinc, has been successfully employed in ringworm of the scalp, alopecia areata, warts, boils and sycosis. Ionisation with quinine has been employed with benefit in herpes zoster, while the salicylic ion has acted well in acne. Iodine ions have been used by Riddell, of Glasgow, for some time past in the treatment of ringworm.

Chemical Agents.

The setting free of nascent iodine locally by the action of peroxide of hydrogen upon a lupus lesion while the patient is taking iodide of sodium, after the manner of Pfannenstill, I have found of considerable value in dealing with nasal cases in which the mucous membrane is involved. At a recent meeting of the Dermatological Section of the Royal Society of Medicine a case was shown by Sibley in which lupus of the buccal mucous membrane had been successfully treated by insufflations of equal parts of iodide of potassium and chalk, the mouth being afterwards rinsed with chlorine water in lemonade. Axel Reyn liberates nascent iodine in a patient taking iodide of sodium by electrolysis of the lupoid lesion itself.

Some interesting observations have lately been made as to the power of certain aniline dyes to influence epithelial growth. One of these, scarlet red, has achieved considerable reputation as a cell-proliferant, being employed as a 1-4 per cent. ointment in cases of ulcus cruris. A modification of this, amidoazotoluol, or the diacetyl derivative of this known as pellidol, may be employed in weaker dilutions than scarlet red. Basic fuchsin has also been recommended by May and Heidingsfeld.

Allantoin, the active substance of the common comfrey root (*Symphytum officinale*) has been employed successfully by C. J. Macalister and others in chronic ulcers. It should not be used in foul or septic conditions, nor in too strong a solution.

Of late the remarkable researches of Strauss, of Barmen, into the germicidal powers of copper salts, especially in connection with tuberculosis, have led to the experimental application of copper chloride and tartrate, and, more recently still, the combination of copper with lecithin, known as "lecutyl," in cases of lupus. A little girl with severe lupus around the ankle has just been under my care in the hospital. I scraped her and afterwards applied copper lecithin locally. At the same time she took pills of the same substance internally. The time is young to report fully upon this method, but the results, so far, seem encouraging.

Auto-Serum Therapy.

Another direction in which a good deal of research has lately taken place is that of the injection of the patient's own blood serum in certain chronic dermatoses. It is now two years ago since Linser and Mayer were able to cure cases of urticaria, prurigo and herpes gestationis by this means. 10 to 20 c.c. of blood-serum are injected in these affections with success. Ravaut utilised the patient's own blood in similar cases. In certain toxic forms of skin eruption, such as occur in pregnancy, intramuscular injections of Ringer's solution have been practised with success by Eichmann and others. Excellent results have recently been reported by Holobut and Lenartowicz in pemphigus by injecting the clear, sterilised contents of the bullæ themselves in 2-6 c.c. doses.

I have endeavoured to indicate in the briefest fashion some of the principal directions in which progress is being made in dermatology. There yet remain a great many questions to be investigated. The influence of the internal secretions, for instance, and the findings of chemical analysis of the urine, the fæces and the blood, the bacteriology of skin affections in general, and last, but not least, the discriminating use of histological methods, are all of the highest importance to the dermatologist who would study his speciality with keenness and interest.

Note.—*A Clinical Lecture by a well-known teacher appears in each number of this Journal. The lecture for next week will be by P. Moriquand, Professor at the Faculty of Medicine, Lyons, Physician to the Hospitals. Subject: "Subjective and Ectopic Abdominal Pains."*

Dr. Frederick B. Power is retiring from the position of Director of the Wellcome Chemical Research Laboratories next month. The high character of the research work carried out in these laboratories during the eighteen and a half years of his directorship is well known to medical men. He will be succeeded by Dr. Frank L. Pyman, who has already made several important contributions to chemical science.

ORIGINAL PAPERS.

TREATMENT OF HEART DISEASE BY MEANS OF PHYSICAL EXERCISES AND CO_2 BATHS. (*a*)

BY I. HARRIS, M.D.

THE treatment of certain forms of heart disease by means of physical exercises and CO_2 baths has long ago been adopted on the Continent: in this country, so far, it has found but scanty recognition, and yet its value for suitable cases of heart disease is indisputable, and the principles underlying the form of treatment are the same by which Nature usually remedies a defective circulation—by increasing the hypertrophy of the heart.

Voluntary and involuntary muscles increase their efficiency by exercise, and the effect of the one reacts on the other. That holds good for the normal as well as for the diseased heart. But, in addition to that, exercise is capable in the latter case of developing the peripheral vessels to such an extent as to make them assume in part the functions of the diseased central organ (K. Haselbrock). Increased exertion does not, to the same extent as in the normal heart, manifest itself in an increase of blood pressure (which denotes an increase of cardiac activity), but the regulatory functions of the peripheral vessel become more efficient.

Other beneficial effects are:—*First*, exercise produces deeper breathing, and thus the suction power of the chest is made more effective; it increases the efficiency of the vaso-dilators and contractors, improves metabolism and by causing a group of muscles alternately to contract and dilate, the flow of the blood towards the heart is facilitated.

It also acts reflexly on the splanchnic nerves, and thus causes the organs supplied by these nerves to contract and empty their contents. Lastly, exercise increases the efficiency of the different organs of the individual, so that the usual activity of daily life becomes less fatiguing.

Work, then, benefits equally the patient suffering from heart disease as it does the healthy individual. The only difficulty is that of knowing how to regulate the exercise, so that it shall be both effective and at the same time not an undue strain for the heart.

The difficulty of this problem is not limited to the treatment of disease: how many problems which are waiting in vain for a solution in our present age would be abolished if work—useful work, be it physical or be it mental—could be so regulated as to make it bear a certain and defined relationship to the requirements of the organs and the faculties of the individual! It is an ideal which cannot be applied to everyday life, but which must be enforced in the enfeebled organ where the reserve power is small and the demarcation line between activity which is beneficial and activity which leads to overstrain is so narrow. In the various physical appliances which can be finely graduated we possess a method of making this ideal applicable to the patient.

But the application of exercise to disease can only become useful when all the laws of the physiology of work are taken into account. Thus the amount of exercise must bear a definite relationship to the reserve power of the heart. It must follow the laws of activity and repose—that means, its application must be rhythmical. Only one group of muscles should be exercised at one and the same time, in order to avoid as much as possible overstrain of the heart.

As far as the actual effects of exercise on the circulation are concerned, it produces, when employed in sufficient strength, an increase of blood pressure which lasts from fifteen to twenty minutes after work has ceased, and is followed by depression of a few minutes' duration, and only then the pressure returns to normal. The increase of pressure is due to the systole and the diastolic pressure remaining the same as before, which means that the amplitude increases. The pulse rate becomes more frequent and the pulse becomes pronouncedly dicrotic. Repeated exercises of the same intensity fail to produce, after awhile, an increase in blood pressure. Moderate exercise does not increase the blood pressure. These few data with reference to the effect of exercise on the healthy and diseased heart will give us sufficient clues as to the indications and contra-indications of this form of treatment for heart disease.

Exercise is indicated in cases where there is a good reserve power of the heart and the muscles of the body are badly developed, as is often met with in young people. And here exercise will sometimes work wonders.

Secondly, it is indicated in fatty hearts, where it will often effect a permanent cure.

Thirdly, it is indicated in neurosis of the heart.

Fourthly, it is indicated in the convalescence from defective compensation in chronic valvular disease.

Finally, it is indicated in all cases of chronic valvular disease where the heart muscle is intact.

It will maintain a better compensation than digitalis would under the same conditions, without of course producing any of those bad effects which the prolonged use of this drug entails.

It is contra-indicated:—

1. In angina pectoris and aneurysm.
2. In patients who have led a too strenuous life.
3. Soon after an acute attack of valvular disease and after rheumatic and other fevers.
4. Where the reserve power of the heart is small, and where there is a great deal of œdema and difficulty in breathing.

In arterio-sclerosis, so long as the disease has not progressed too far, the patient will do well under physical treatment; the heart will become stronger and the patient will be able to follow his daily occupation with less effort than usual, and carefully graduated exercise will not increase the blood pressure.

So far as the actual methods are concerned by which the treatment is to be carried out, only the following systems permit of a scientific graduation: the Oertel, the Schott, the Zander, and the Herz systems.

The Oertel system consists of gradually increased walking exercise, first on flat surfaces and afterwards on gently sloping hills. This method does not allow of careful graduation, and ought only to be recommended after the patient has carried out a successful course of treatment by means of the other methods.

The Schott system consists of a series of move-

(*a*) *Liverpool Medico-Chirurgical Journal*, July, 1914.

ments, active and passive, carried out on alternating muscle groups by means of manual manipulation. Here also perfect graduation is impossible to attain; for the manipulator, being a human being and not a machine, is unable to gauge always the exact graduation required.

The Zander and Herz systems are very similar to each other. They consist of a series of apparatus suitable for the manipulation of the different muscle groups. By means of levers and weights careful graduation can be obtained. The machine for active movement is of course worked by the patient himself, those for passive movements by means of a motor. I use the Zander system, which I have fitted up at my premises, and can therefore only speak from personal experience of that system.

Before carrying out a course of exercise the patient should be carefully examined in regard to the reserve power of the heart. This is best done by making the patient carry out a few simple movements, and noting their effect on the heart.

The movements are carried out slowly, about twenty times in the minute. In mitral disease a great deal of attention should be paid to breathing exercises, whilst in aortic trouble the exercise of muscles is more important. In order to avoid any possible overstrain it is best to start with more difficult exercises, gradually going down to the easy ones, then allowing a few minutes' pause for rest.

The effect of CO_2 water baths is neither due to CO_2 nor to the water bath alone. An ordinary water bath of a temperature at which CO_2 water baths are usually given produces a marked increase in the blood pressure and a diminution of the pulse rate. The CO_2 gas bath, on the contrary, increases the pulse frequency (Grödel); the blood pressure is not influenced at all. The CO_2 gas bath excites always a feeling of warmth in the patient; the ordinary water bath, at a temperature at which CO_2 water baths are usually given, a feeling of coldness. A CO_2 water bath at a temperature of 33°-35° does not affect the blood pressure; colder baths produce an increase of the same, but the pulse rate always diminishes under its influence. The patient, too, feels more comfortable in a cold CO_2 water bath than in an ordinary bath of the same temperature.

To the antagonistic properties which are contained in the CO_2 water bath Senator and Frankenhauser ascribe the beneficial effect of these baths on heart disease. The CO_2 bubbles in the CO_2 water bath force away the cold water from the surface of the body, taking its place and exciting a feeling of warmth; thus a perpetual interchange between cold and warm stimuli, which are acting on the body, is taking place. Whether this theory is correct or not is difficult to say. One thing is certain: it is a mistake to attribute, as Mackenzie has done, the sole effect of the CO_2 water bath to the ordinary water.

Besides producing warmth, CO_2 becomes absorbed by the skin and excites deeper and more voluminous respiration.

CO_2 water baths contract the vessels of the periphery, dilate those of the brain and abdomen and diminish the rate of pulse frequency. A different distribution of the blood takes place in various parts of the body, the skin reddens, the heart action is increased, and the breathing becomes deeper without becoming more frequent under its influence.

All these signs indicate that CO_2 acts primarily on the vessels, making them dilate and contract more efficiently, and thus diminishing the resistance to the heart's activity.

That CO_2 water baths have a good effect on suitable cases of heart disease can hardly be doubted. It has been repeatedly demonstrated that under its influence a diminution of cardiac dulness and return of the apex beat to the normal has taken place. I have myself often experienced an irregular pulse becoming regular under this treatment.

The same indications and contra-indications that apply to physical exercise also apply to CO_2 water baths. In the treatment of patients by means of CO_2 water baths the same graduations as in physical exercise must be observed. By increasing the CO_2 in the bath and lowering the temperature, the effect of the bath can be increased. In treatment of heart cases at my premises, I usually combine the CO_2 water bath with physical exercise, but one method of treatment can be successfully carried out without the other.

THE OPHTHALMOSCOPE IN GENERAL AND MEDICAL PRACTICE.

By C. O. HAWTHORNE, M.D., F.R.F.P. & S. Glasg.

Physician to the Hampstead and North-West London Hospital, and to the Royal Waterloo Hospital for Children and Women.

On more than one occasion, when addressing practitioners and students of medicine, I have ventured to say that the clinical examination of any patient, to be satisfactory and secure, must include inspection of the fundus oculi and other parts of the eyeball, just as it must include the use of the stethoscope and the application of chemical tests to the urine. Until recently I was under the impression that this proposition, though widely ignored in practice, was not seriously challenged in principle by any responsible authority. It appears, however, from a lecture published in the *Clinical Journal* (*a*) some months ago, that in affirming the necessity for the routine use of the ophthalmoscope, and in advocating the measures necessary to secure this end, I display "extraordinary ignorance," am guilty of "confusion between diagnosis and treatment," and fail to appreciate "the responsibility attaching respectively to the physician or ophthalmic surgeon with regard to each." The last two counts of this indictment, in spite of their truly terrible sound, are decidedly wanting in precision, and as no particulars are advanced in their support, I may be excused for failing to understand them. As for "ignorance"—well, this is a fairly widespread failing. Dr. Johnson himself pleaded guilty to the charge; even ophthalmic surgeons may not altogether escape it; and a physician must be content to be condemned with his neighbours. Yet, while making my confession with all due humility, I may perhaps be allowed to remark, that my personal failings in no way affect the value of the propositions I have stated. These must be met, if met at all, by argument, and not by the advertisement of my "extraordinary ignorance" or by the announcement, *ex cathedra*, that my "mistake . . . is the confusion between diagnosis and treatment," whatever this may mean. The

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(*a*) January 7th, 1914.

personal scolding may quite possibly be just, without affecting in the least degree the validity of the claim that unless the fundus oculi is examined in each individual patient a serious error in diagnosis and treatment may at any time result. This proposition stands by itself, and may readily be discussed without reference either to ignorance on the one side or to omniscience on the other.

To prevent all misconception, I may briefly repeat the two main propositions of the paper(*a*) which has provoked the censures of my critic. The first is that many of the pathological changes which occur in the fundus oculi are important, not because they are signs of local disorder, but because they announce the existence of some constitutional or visceral disease. And my second proposition runs, that these fundus changes are not infrequently the first available clinical evidences of the diseases to which they severally belong. If these propositions are accepted—and they are really quite beyond challenge—it follows that unless examination of the fundus oculi is adopted as a routine measure in every patient, a diagnosis which would have been readily possible by means of the ophthalmoscope, will, every now and then, be postponed or missed. From this conclusion there is no possible escape. Opinions may differ as to the frequency or infrequency of such a disaster, but that the disaster will sometimes arrive, and as a matter of fact does arrive, cannot possibly be questioned. There is one way to avoid it, and one way only, namely, to make the practice of ophthalmoscopic examination a part of the routine investigation of every case. Unless someone can tell us in advance which cases need ophthalmoscopic examination and which make no such demand—and no one pretends to do this—we can never be sure that negligence in any individual instance may not mean for our patient the calamity of a diagnostic error; and the importance of this statement is emphasised by the knowledge that disturbances of the most serious significance may exist in the fundus oculi and yet the patient be free from any sense of visual defect.

Given, therefore, an individual patient, it is imperative, if he is to be efficiently protected, that his medical adviser shall know whether there are, or are not, pathological changes in the fundus oculi, which is only another way of saying that an ophthalmoscopic examination is an essential part of every complete clinical examination. Is this conclusion accepted? It is the main proposition of the paper for which I am criticised, but I do not find that my critic either explicitly accepts it or explicitly rejects it. He tells us, it is true, that, as even "ignorant" people know, "there are many diseases of the eye which are compatible with fairly perfect vision, as shown by the test types"; and he allows that "most of these conditions require skilled use of the ophthalmoscope." But whether from these premises he draws the conclusion that every patient ought to have the benefit of an ophthalmoscopic examination it is impossible to say. All we are told is that "the skilled use of the ophthalmoscope . . . is no part of a general practitioner's work." Diseased conditions of the first importance may be present though the patient is unconscious of any visual defect: they can be discovered only by ophthalmoscopic examination—these propositions are duly announced; but their application in practice remains in doubt. Do they mean, or do they not mean, that the only secure method to pursue is to examine the fundus oculi in every case? This question involves the central point of the controversy; and yet in the lecture with which I am now concerned it is nowhere plainly answered. If it is to be answered in the negative, then clearly a certain proportion of our patients must be left to the hazard of a diagnostic error. If, on the other hand, we agree that safety is not possible without ophthalmoscopic examination—and I shall venture to assume this until I am contradicted—there remains only one further issue to be considered, namely, By whom is this examination to be made?

My answer to this question has been that the examination may quite well be undertaken by the practitioner in charge of the case, and that medical education ought to include the modest measure of training which is necessary for this duty. I have urged, further, that this is the ideal to set before every practitioner; and I now venture to add, that unless undertaken by the family practitioner the ophthalmoscopic examination in the great majority of instances will not be undertaken at all. The only alternative is someone believed to be a specially trained expert. But this would mean that every patient needing a complete examination would have to be referred from his usual medical adviser to a practitioner believed to be specially competent in the use of the ophthalmoscope; and it is needless to say that in practical life this is out of the question. If a patient is conscious of defective sight he will doubtless be ready to take expert advice on the subject, but on the mere possibility that the examination of the interior of his eyeballs may perchance yield some useful information he will hardly be ready to spend either time or money. It follows, therefore, that if the ophthalmoscope is to realise its value as a help in the diagnosis of visceral and constitutional disease, its use must not be confined to the practitioners of ophthalmic surgery. On the contrary, it must be placed where alone it has a full opportunity, namely, in the hands of the family practitioner. That obscure or difficult points in reference alike to observation and interpretation may need a specially experienced skill or judgment, is a commonplace, and is not in dispute. But this in no measure qualifies the argument already stated. This argument lies in a narrow compass: unless the ophthalmoscope is used as a matter of routine the beginnings of disease may be overlooked; such use must either be adopted by the family practitioner or confined to a limited number of experts; on the latter plan, ophthalmoscopic examination will certainly not be widely secured; therefore anyone who admits that such examination is necessary must needs urge its cultivation in general practice.

It may be possible to hold that inspection of the fundus oculi is not a necessary part of a general clinical examination; that, in other words, the neglect of it is not of any practical importance. But it is not possible to hold that such examination may prevent serious diagnostic error, and yet to teach that it need not be made. Once allow that the examination ought to be made, and the choice is between the so-called expert and the family practitioner. The former is largely out of reach. There remains only the family practitioner; and this is the burden of my claim.

It seems necessary to ask quite plainly what is the ground on which opposition to this claim is

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(*a*) *The Ophthalmoscope*, September, 1913.

based. Is it contended that routine ophthalmoscopic examination is unnecessary? Or is the demand that this examination should be undertaken only by those who practise ophthalmic surgery? In the lecture with which I am now concerned we get no clear answer to these questions. On the one hand we are told that the "skilled use of the ophthalmoscope . . . is no part of a general practitioner's work," and that "skilled ophthalmoscopic examination" is for general practitioners "an unworkable ideal." On the other, it is announced that "the use of the ophthalmoscope . . . serves to break the monotony of general practice," and the practitioner is advised to study the diseases of the eye in such a fashion as to be able to localise "the part of the eye which is affected and the probable cause of deterioration in vision." But if the practitioner may use the ophthalmoscope to relieve monotony or to localise disease, why may he not use it as part of his scheme of general examination? To allow the one motive as praiseworthy, while uttering solemn warnings against the cultivation of the other, is surely to preach doctrines which are mutually inconsistent. That the ophthalmoscope is a sacred instrument and is only safe in the hands of an ophthalmic surgeon is a position which, however absurd, can at least be understood. But to advise it as a relief from monotony, and yet to describe its general employment as "an unworkable ideal," is to escape the possibility of logical defence. The use of the instrument may be either advised or condemned. But an exhortation to cultivate it as a recreation while avoiding its practical values can only be described as amazing.

The essential fact of the situation is that the ophthalmoscope is an instrument by which the nervous, vascular and other tissues of the eyeball can be examined. The state of these structures is often of importance to those who practise ophthalmic surgery, and practitioners so engaged, naturally therefore, cultivate the art of ophthalmoscopic examination. But in many cases the same issue arises quite apart from any question of local surgical procedure, and practitioners responsible for such cases are under an obligation in each instance to settle the matter definitely one way or the other. This they can do—and often there is no alternative—by learning to examine the fundus oculi for themselves.

To present this practice as a rash and anxious undertaking, entangled amidst "the ramifications of ophthalmology," is to invest with an air of unnecessary mystery what is really a perfectly simple and straightforward proceeding—a proceeding, too, which may readily be mastered by any practitioner (*a*) who, for his own benefit and the benefit of his patients, will give a little time and trouble to its cultivation. More especially in these days of the electric ophthalmoscope the inspection of the fundus oculi is, in the great majority of cases, a matter of extreme simplicity (*b*), and anyone who employs this method will soon learn to distinguish between what is normal and what is abnormal, even although for the precise identification of any abnormality observed he may, at least in his early days, find it necessary to solicit some more experienced opinion. It may be quite true, as we are told, that the ophthalmic surgeon can boast "a knowledge of optics(*a*) and the many details of refraction work, some parts of general medicine and surgery, neurology, the variations of the normal anatomy and physiology connected with vision, together with the special surgery of the eye." Such a recital revives the familiar figures of Goldsmith's schoolmaster and his village audience:—

> "And still they gazed, and still the wonder grew
> That one small head could carry all he knew."

To wear so considerable a weight of learning "lightly, like a flower," is indeed no small achievement, and we may bow before it in respectful admiration and amazement. But wherein does it provide a reason why those of us who have no surgical ambitions should hesitate to cultivate the services and guidance of the ophthalmoscope? This is the course I propose, and it in no way conflicts with due respect and regard for the manual and mechanical dexterities of our surgical colleagues.

On the point of the medical curriculum it is certain that under modern conditions the medical student has a training in physics and physiology quite sufficient to fit him to appreciate the optical questions involved in the use of the ophthalmoscope; and on the practical side my argument has been, that as the application of the ophthalmoscope has a much wider range than the activities of ophthalmic surgery the student ought to be introduced to this larger area as an essential part of his practice and training. He ought, to quote my challenged paper, to see "the physician in the wards and the assistant physician in the out-patient department making an ophthalmoscopic examination as much a matter of routine practice as are auscultation of the cardiac sounds and estimation of the tendon-jerks." And in saying this I am not to be accused of advancing a rash opinion detached from actual practice and based on "ignorance," "confusion," and an "underlying mistake." From many years' experience as a clinical teacher and examiner I am satisfied that students can easily be trained to regard and to use the ophthalmoscope as a necessary means for the routine investigation of medical cases; and in view of this experience I cannot allow such a method to be "an unworkable ideal."

Moreover, in what I have said, I have, after all, done little more than repeat what has been urged by voices of much greater command. It is more than forty years ago that Dr. (now Sir) Clifford Allbutt wrote: "Every medical school is now bound to teach its students the use of the ophthalmoscope as carefully as the use of the stethoscope is taught"; and according to Sir William Gowers, writing in 1903, "no defect in medical education seems so persistent as ophthalmoscopic training. It will be so until the inspection of the normal disc is part of practical physiology, or at least is taught with the stethoscope at the beginning of practical medicine. Clinical work abounds with unused opportunities, because the eye is never looked into until the end of the student's course."

(*a*) "There is nothing inherently difficult in the use of the ophthalmoscope . . . and with a little practice any man of ordinary ability can acquire sufficient proficiency to diagnose gross changes in the fundus—such conditions, for example, as optic neuritis, optic atrophy, albuminuric retinitis, disseminated choroiditis, and massive hæmorrhages."—*Brit. Med. Journ.*, July 4th, 1914.

(*b*) "On a recent occasion when the All-India Conference met in Madras, a number of its members, who had not touched an ophthalmoscope for many years, were shown the fundus with an electric opthalmoscope as simply and easily as they could have been shown a picture hanging on a wall through a hole in a partition. Not only so, but it is our practice to demonstrate the fundus with this instrument to lay visitors to the hospital."—Col. R. H. Elliot, *The Ophthalmoscope*, March, 1913.

(*a*) "We know many excellent ophthalmoscopic observers and retinoscopists who have but a slight conception of the optical principles of the instruments they use so well."—Mr. T. Harrison Butler, *The Ophthalmoscope*, July, 1914.

If authorities of such weight and order have received but a partial hearing, I myself may perhaps hardly hope for any audience. Yet, even so, I am little disposed to be silent. My personal defects may doubtless include all those described by my critic, but this does not hinder me from maintaining that the argument advanced in the paper which he censures has neither been met in detail nor refuted in principle.

SOME COMMON ERRORS IN NEUROLOGICAL DIAGNOSIS AND TREATMENT.

By TOM A. WILLIAMS, M.B., C.M.Edin.,
Washington, D.C.,
Corresponding Member of the Societies of Neurology and Psychology of Paris, Neurologist to the Epiphany Free Dispensary, etc.

The fundamental error too common in contemporary therapeusis, happily passing away now, is the striking at the symptoms. It is the groundwork upon which is built the nostrum evil. These compounds make appeal only to physicians versed in nothing but pharmacodynamics, and poorly versed at that. Pathogenesis teaches better. That one knows how to slow a rapid heart does not prove the desirability of such slowing for the patient's sake. A pained abdomen does not command an opiate, but rather surgical intervention. Is there any more reason why a pained cerebrum should demand an opiate? Stupefaction by sedatives is no better treatment in nervous cases than in surgical.

The difference between the two groups of cases is that surgical pathology is understood by many, while neuropathology, and above all psychopathology, is hardly even sensed save by a few.

A few examples of changed practice will make clear the point of view required in current practice in order to save the numerous nervous wrecks resulting from the exceedingly bad therapeusis now so common. If, as has been said, mistakes are more instructive than successes, there need be no apology for discussion of a few in the admittedly fallacious field of neurological practice.

Symptomatic Treatment.—In neurology, typical examples of the errors due to survival of that conception of medicine which, ignorant of causes and mechanism of disease, sought to neutralise symptoms are afforded by the belief that an excitable person should be given bromides, the symptom of excitement being met by a depressant, or that one who feels below par should be given stimulants, of which strychnine is usually the first suggested—although a moment's reflection should show the absurdity of treating by a purely spinal excitant an inadequacy of the higher neurones of the cerebrum in a patient with lower neurone reflexes already exaggerated. Even should a patient suffer from inadequate spinal activity, the practice would still be just as bad as everybody now knows enough to condemn, the indiscriminate giving of opium in painful affections within or without the abdomen, or the giving of purgatives for intestinal obstruction. The perniciousness of these practices stands to the reason of one who thinks in terms of pathology. But it actually required years of application of the experimental method of trial and error before surgical method superseded these evil practices.

Indiscriminate Electrical Applications.—An error almost as common is the application of some modality of electricity to patients with what is loosely called functional nervous disease. The procedure of the physician who does this has no better standing than that of the unqualified practitioner whose existence we all deplore. He forgets, if he ever knew, that the inadequacy of a patient's response to environment by means of his nervous system may originate from a bodily disorder the treatment of which has nothing to do with the nervous system at all. The apparent relief of the patient may even be due to suggestion, just as in much of the practice of the charlatan. Those who are unconvinced by this example have only to apply what I have said about chronic disease to some acute disease. In typhoid fever, for example, the interference with nervous function is invariable, even the reflexes being modified in most cases, while the cerebral systems gave their name to the disease. It is a functional nervous disorder if the term has any meaning, and yet no one pretends to treat the nervousness of a typhoid patient by the unthinking empiricism so often applied to chronic conditions.

It is the prevalence of this unenlightened empiricism which prevents us from convincing legislators and other laymen of the essential difference of the science and art of medicine for which we stand, in contrast with the practice of osteopathy chiropratic, optometry, Christian science and similar attempted short cuts to the relief of suffering. An instance will show the point:—

A man was referred me by Dr. Wingerter of Wheeling, W. Va., because of an increasing incapacity to manage his limbs, which had progressed to a point where his work as dentist was impossible. He had been treated for several months by electricity, and later by massage applied by an osteopath. *No diagnosis had been made.* These measures were therefore a waste of time and money, for the man had amyotrophic lateral sclerosis, a progressive disease usually fatal in two years, through paralysis of the muscles of deglutition and respiration.

Failure to detect Tabes Dorsalis.—An error of this type is particularly common in another, but much more hopeful, disease in which the spinal cord is affected. A clinical example will make the point clear.

A school teacher, whom I saw in consultation with with Dr. Judes of Webstertown, W. Va., suffered for some years from recurring pain and numb feelings in the legs. These pains were believed to be rheumatic because they seemed sometimes to be relieved by salicylates and were greatly improved by a few months at a watering place. That she became less able to perform her work was attributed to the stress of the teacher's life, and so-called "general tonics" were prescribed. She went to Clifton Springs not long before I saw her, and was there treated by a series of baths and exercises, alternated with rest. No diagnosis was made, yet it is not conceivable that her symptoms of five years' duration had not for some time been accompanied by ascertainable physical signs, for when I saw her last summer the deep reflexes were everywhere absent, the pupils did not react to light, the sensibility of the lower limbs was seriously impaired, and there was some inco-ordination. Of course, the diagnosis was tabes dorsalis. Appropriate treatment has enabled the young woman to recover weight and strength, and she is now performing her work more satisfactorily than for five years past.

Because of space limitations other cases are not here published, but it may be stated in general that rheumatism for lightning pains, asthenopia for paretic strabismus, gastric ulcer for tabetic crises, and even tuberculosis for laryngeal crises and cystitis for tabetic bladder are not uncommon errors. The Wassermann sero-diagnosis is of but little help, for in 40 per cent. of tabetics the reaction is negative. The clinical diagnosis is thus the paramount means still. (*a*)

Of the same type is the error of diagnosis and treatment which leads a practitioner to treat as nervous dyspepsia merely symptoms of remittent discomfort, flatulence, and pain in the abdomen, with general nervousness.

Nervous Dyspepsia erroneously diagnosed.—A case in point was that of a powerful man—referred by Dr. Burch,—6 ft. 2 in. in height, who had lost 40 pounds in weight and suffered from insomnia, great irritability of temper and great discomfort after eating. He had greatly restricted his diet on account of a diagnosis of nervous dyspepsia. When he was first referred to me, eggs and milk were his main sustenance. Different medical men had rung the changes upon alkalis, acids, stomachics and adjuvants of various kinds. Besides these, sedatives had been given freely; so much so that his fatigability was extreme and he easily became lachrymose. For those who employ it, the diagnosis "abdominal neurasthenia" would have been ready. Physical examination, however, showed in the first place great exaggeration of the deep reflexes, a tachycardia of 110, and a fine tremor. Great variability of the blood pressure at different examinations was also revealed, and excessive perspiration was easily provoked, while emotivity was a prominent feature of the case. This was not of the psychogenetic type, for the only possible agent revealed by psychoanalysis was an apprehension lest his condition might have been provoked by the excessive venery in which he had indulged until about two years before. Further analysis showed this not to be the source of his anxiety, which, in so far as it was psychological, was the natural response to the morbid feelings produced by his grave physical condition.

In spite of the absence of ocular signs and of thyroid enlargement, the case was declared to be one of hyperthyroidism plus pluri-glandular dystaxia. The dyspepsia was just as secondary as were the other symptoms. Although we do not know the ætiology of this disease and are obliged to resort to empirical treatment, yet it is more rational to apply the latter to the more primitive disorders than to such secondary effects as dyspepsia, nervousness, insomnia, sweating, exhaustion, or tachycardia. Accordingly, the dystaxic glandular apparatus was exercised by stimulation of the cutaneous surface through changes of temperature by means of water, this being followed by periods of repose, for the maintenance of adjustment during freedom from stimuli, physical or psychological. A balanced dietary was also imposed, and the man's anxiety about himself allayed as much as possible. The therapeusis was difficult, but finally succeeded, and the man is now at work, free from symptoms, although not quite up to weight and still a little abrupt in his reactions.

A diagnosis of nervous dyspepsia, too, is the usual fate of patients in the early stages of pernicious anæmia. A proper examination of the blood would, of course, obviate this error.

In pellagra, likewise, remittence of the gastro-intestinal symptoms leads to the same erroneous diagnosis and treatment on the part of clinicians who think only in terms of symptoms to neutralise.

Nervous Dyspepsia diagnosed in a Case of Pellagra with Spinal Sclerosis.—A woman about 48 years of age, was seen with Dr. Cobey of Frostburg, Md., in October 1912. She gave a history of long standing nervous dyspepsia and anæmia. Recently she had become progressively weaker until locomotion was impossible without assistance. Glossitis, varying in severity, was said to have lasted four years. She had been treated for years for dyspepsia and pernicious anæmia had lately been suspected, but the characteristic blood picture was stated not to have been present. Syphilis was then thought of, and a mercurial course given without benefit.

Upon examination, the tendon reflexes proved all absent except those of the right arm and the left radius, which were very feeble. The plantar reflexes were feeble also, and the pupil reflexes, though brisk, were not maintained. Tingling and numbness in the hands and feet annoyed her.

Sensibility to pin pricks was lost below the knee except on the fibular border of the feet, where it was feeble, as also in the thighs. Touch and vibration were lost and impaired in the same regions respectively. Attitude sense was lost only in the ankles. Pressure pain was everywhere exaggerated. The temperature sense was not tested.

Motility was much weakened in the whole of the lower limbs, especially so in dorsiflexing the feet. The left triceps was weaker than the right. But the patient was feeble in general. The gait was shuffling and unsteady, and she fell readily when unsupported. Ataxia was absent.

Nervous dyspepsia should be diagnosed only when its genesis is psychological, and this can be found out only by a proper analysis of the patient's case.

Neuritis Erroneously Diagnosed.—A most common error is a diagnosis of neuritis because of the presence of local pain, especially when this is increased by movement or pressure. One such case I described fully before the Medical Society of Virginia in 1910. (*a*)

The pain in the right arm from which this young woman suffered was due to the dragging upon the muscular attachments caused by the tension of her muscles produced by an occupational psychogenetic writer's cramp, of which I cured her.

An occupational pain in the shoulder was similarly the cause which led a young male stenographer, supposedly neuritic, to be sent me last spring, by Dr. Noble Barnes. Actually, the pain did not arise from irritation of the nerves in the arm. Nor did it come from a psychological source, as in the case of the last patient. The fact that it was allayed by rest,

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(a) See Case *Va. Semi-Monthly*, December 21st, 1912.

(a) Trans. *Med. Soc. Va.*, 1910; *New York Med. Jour.*, January, 1913.

which is really no proof of a so-called neurosis, arose from its production by a traumatic lesion of the connective tissues, including the subacromial bursa.

Local neuritis is an unusual disorder except when the direct result of local trauma or infection. General infection or intoxication produces a general neuritis, the physical signs of which are well-known and unmistakable. The attribution of chronic local pains, without proper examination, to neuritis is as reprehensible as their attribution by the osteopaths to a spinal displacement.

(*To be concluded in our next.*)

OPERATING THEATRES.

HAMPSTEAD AND NORTH-WEST LONDON HOSPITAL.

Three Cases of Gunshot Injury Received during the Early Stages of the Battle of the Aisne Operated on by Mr. Jackson Clarke.—Case 1.—A sturdily-built infantryman, the lower end of whose left humerus had been traversed by a rifle bullet. The elbow was nearly double its normal width. Both wound of entry and that of exit of the bullet had healed aseptically. An X-ray showed that the bullet had passed transversely through the lower end of the humerus close above the articular surface. The trochlea and capitellum were displaced to the inner side of the lower end of the shaft, accounting for complete ulnar paralysis which was present.

Operation.—A U-shaped incision, convexity upwards, was made across the elbow and the flap turned down, exposing the base of the olecranon, which was chiselled through, and the interior of the joint thus exposed. The ulnar and radial articular surfaces were normal, whilst the lower end of the humerus was found to be comminuted into six separate fragments, which, being detached from all their connections with the surrounding parts, were removed, and the lower end of the shaft of the humerus was shaped to suit the sigmoid cavity of the ulna. The olecranon was re-attached by passing a stout silk suture through the triceps tendon and through a drill hole in the upper end of the ulna. The incision was then closed throughout, and the limb put up on a posterior malleable splint applied over the dressings.

Case 2.—An infantryman, the upper fourth of whose left ulna had been shattered by a rifle bullet, causing, as an X-ray showed, a typical bullet fracture of a hard bone, a small central space being surrounded by numerous splinters of bone detached in a radial manner from the central space which marked the path of the bullet. This patient had complete ulnar paralysis. The fracture was solidly healed five weeks after the injury was received, but there was no sign of recovery of the ulnar nerve.

Operation.—The ulnar nerve was exposed by an incision beginning over the site of the nerve behind the internal condyle, and passing downwards and forwards along the septum between the palmaris longus and the flexor carpi ulnaris muscles. The nerve was exposed by separating these muscles, and three-fourths of an inch of it were found to have been destroyed by the bullet. The adjoining sound parts of the nerve were cut transversely. The shortened nerve was stretched by careful digital traction, but in order to obtain their readjustment without tension it was necessary to displace the nerve from behind the internal condyle to the front of this process. The ends were then united by catgut stitches, one passing through the whole thickness of the nerve, others through the capsule. The limb was put up in a flexed position.

Case 3.—A bullet fracture through the shaft of the humerus at the junction of the middle and lower thirds. Complete paralysis of the musculo-spinal nerve. The fracture had united at the end of five weeks, but the paralysis persisted.

Operation.—The nerve was exposed through an oblique incision over its course, and, as in Case 2, nearly an inch of nerve was found to have been destroyed. The damaged part having been excised and the nerve stretched, the ends were united as in the former case and the limb put up with flexed elbow, and a separate malleable splint was applied to the back of the wrist to maintain hyperextension in order to facilitate recovery of the paralysed extensor muscles.

The course of all three cases was uneventful. After three weeks the patient whose elbow was excised had recovered sensation over the distribution of the ulnar nerve in the hand, and had comfortable voluntary movement at the elbow through an angle of 35°. In the case of the reunited musculo-spinal nerve sensation began to reappear at the end of ten, and in the re-united ulnar nerve after 14 days.

TRANSACTIONS OF SOCIETIES.

ROYAL SOCIETY OF MEDICINE.

Section of Ophthalmology.

Meeting held Wednesday, November, 4th, 1914.

The President, Mr. Priestley Smith, F.R.C.S., in the Chair.

Mr. A. Hugh Thompson showed a young girl who had dilated pupil of Argyll-Robertson type, with well-marked contraction on closure of lids. The condition was not congenital in her, because two years ago her pupils were normal, and she had only slight myopia. The knee-jerks were normal.

He also exhibited a case of one-sided internal ophthalmoplegia. The man was invalided from the Navy two years ago on account of supposed aneurysm. He was a stoker in the Navy, and since he left that he had been doing similar work—stoking—in a brewery. No aneurysm had been found, though he was carefully examined by Sir John Broadbent.

Mr. Rockcliffe spoke of two cases in his experience with mydriasis and iridocycloplegia. In one there was a strong family history of retinitis pigmentosa, but in the patient there was no retinal or pigmental change. One patient's end was in an asylum as a general paralytic.

Mr. N. Bishop Harman showed a case of congenital entropion. The lashes of the lower lid were permanently erect, and the child was born with the condition. The Meibomian glands seemed deficient. The mother was normal, but the grandmother was said to have had a double row of lashes. He proposed to split the lid, so as to separate the lashes from the glands, and graft between the two a strip of mucous membrane. If that succeeded, he expected the lashes would be prevented from reaching the cornea again.

Mr. Mayou referred to three similar cases which he had had. He operated upon them by taking out a narrow band of skin on the outer side of the lid. There had been no recurrence, though one was operated upon five years ago.

Mr. Bishop Harman read notes of a case of high myopia in an infant.

Mr. W. H. Jessop showed a case of tumour of the lower lid, which he regarded as a lymphangioma. A former term applied to it was elephantiasis nostras. Skiagrams showed nothing abnormal about the bones, and skilled nasal investigation was negative.

Surgeon-Major Elliott mentioned a similar case which he saw in India, and which was found to be sporotrichosis ochonelia.

Mr. Leslie Paton said he had seen a similar case following the extensive scarring of lupus, and there was complete blockage of the lymphatic ducts draining the eyelid. He sent the case to a colleague with the request that he would establish a permanent drain into the lymphatics of the lip.

Mr. Harman reminded members of a case shown at the Laryngological Section in which draining was done into the neck, and answered fairly well.

Mr. A. W. Ormond exhibited a doubtful case for diagnosis, which was generally regarded as inflammatory.

Mr. H. L. **Eason** exhibited an interesting example of confluent tubercle of iris. Tuberculin had not improved it. As perforation was occurring in the ciliary region, the only course was removal of the eye. He had had a case in which perforation occurred in three weeks; in this case it commenced in the fifth week of the history.

Mr. **Dawnay** showed a patient suffering from intraocular metastatic carcinoma.

Mr. W. T. **Holmes Spicer** read a communication entitled

CYSTS IN THE ANTERIOR CHAMBER ARISING FROM THE PARS CILIARIS RETINÆ,

and illustrated it by a number of slides. The case had been under observation seven years; it began with a white spot at the edge of the pupil at three months of age. At 16 months, when first seen, there were three opaque, finger-shaped masses coming into the anterior chamber from behind the iris. Four years later these had disappeared, and a cyst about 4 mm. in diameter was seen floating freely in the anterior chamber. Other cysts appeared later, and finally there were seven, floating like toy balloons in the anterior chamber. In the meantime the eye had become glaucomatous, a ciliary staphyloma had formed, and the eye was removed. The pathological examination was made by Mr. Greeves. It was found that the cysts were formed of embryonic retinal tissue containing vitreous. They had their origin in the pars ciliaris retinæ, starting from cellular membranes, which grew over the iris and also into the vitreous; the cysts grew on the surface of these membranes. There was, in many places in the walls of the cysts, a resemblance to glioma tissue. The case further proved the non-mesoblastic origin of the vitreous.

Mr. **Treacher Collins**, discussing the case, said it bore out the view of embryologists that the vitreous humour was derived from neural epiblast; it further showed it was derived from only one portion of it.

Mr. **Mayou** referred to a case of his own in which there was a pigmented tumour in a microphthalmic eye, consisting of epithelial cells. It only occupied an eighth of the segment of the ciliary body.

Mr. W. **Lang** spoke of a case he saw with Professor Fuchs, in which there was a semi-translucent brownish cyst in the anterior chamber. Since then he had had a similar case of his own, but an attempt to deal operatively with it was not a success.

NORTH OF ENGLAND OBSTETRICAL AND GYNÆCOLOGICAL SOCIETY.

Meeting held in Liverpool, October 16th, 1914.

The President, Dr. **Willett** (Liverpool), in the Chair.

Dr. W. K. **Walls** (Manchester) exhibited a specimen of double hydrosalpynx and tubo-ovarian cysts removed with the body of the uterus from a young lady, married a few months, whose appendix had been removed a few years previously.

Dr. **Fothergill** (Manchester) described a case of double uterus with right pyocolpos. This case presented great difficulties in diagnosis. The patient was a virgin, æt. 22, with normal menstruation, who complained of pelvic pain of some days' duration, and had a raised pulse and temperature; on examination two masses could be felt which, on account of the symptoms, were taken to be the uterus and a matted appendage. The abdomen was opened and the masses found to be the two halves of a double uterus, with no sign of inflammation, below which, on the right side, a fluctuant swelling could be felt. This swelling was opened from the vagina, and proved to be the occluded right half of the vagina filled with pus.

Dr. **Gemmell** (Liverpool) exhibited a specimen of adeno-carcinoma of the uterus, removed from a patient, æt. 52, who complained of pain and a slight vaginal discharge.

Dr. **Briggs** (Liverpool) showed a specimen of a soft resilient interstitial uterine fibroid from a woman, æt. 30, in which there was great difficulty in making a diagnosis between fibroid and pregnancy. Also a stony hard fibroid, which was difficult to diagnose from an ovarian fibroma. Also a uterus from a case of post-climacteric hæmorrhage.

Dr. **Fletcher Shaw** (Manchester) described a case of septic miscarriage followed by intestinal obstruction. The obstruction occurred a fortnight after the miscarriage, which had been followed by sepsis; the symptoms of which had abated. An abdominal section revealed a loop of small intestine adherent to a mass of glands in the region of the sacral promontory. The loop was freed, and the patient did very well for two days, when acute peritonitis supervened, for which the abdomen was again opened and drained. The patient made a good recovery. In all probability the glands were enlarged from the septic uterus.

Dr. **Briggs** (Liverpool) read a note on the coxalgic pelvis: its lateral tilting. He described this specimen from the pathological museum which was mounted by the surgeons with the diseased side lowest. He discussed the specimen from the obstetrician's point of view, which was that the specimen should have been mounted with the diseased side highest.

SPECIAL REPORTS.

WAR AND THE PROFESSIONAL CLASSES:— FORMATION OF A RELIEF COUNCIL.

Directly the war broke out the distress expected to arise therefrom among the industrial population was at once anticipated and taken in hand to be dealt with adequately by the National Relief Fund. The response to the Prince of Wales' appeal was immediate and generous, with the result that there is little fear of irremediable upheaval of conditions among the industrial classes.

This fund, however, as everyone knows, makes grants only to the Local Distress Committees and the Soldiers' and Sailors' Families' Association. It does not therefore touch in any way the great distress already prevalent among the professional classes, for men and women of this class cannot appeal for help to the Local Distress Committees, who possess no adequate machinery for dealing with such cases.

Yet this class is the one hit most promptly and severely by the dislocation of business and by the sudden, unexpected cessation of the demand for luxuries. In fact, not only are all the professions which depend upon the conditions of peace and the fluency of the market practically at a standstill, and also the creative and artistic professions such as literature, journalism, the stage, art, etc. All these rely upon the conditions of peace or the demand for luxuries, and that demand is gone. However long the war may last, it is certain that the dislocation in the professions will continue for some years after peace has been made.

Many small but hitherto prosperous homes will be broken up through the mainstays being thrown out of work, or through the men, moved by the needs of their country, having enlisted as ordinary privates, receiving, of course, as such, the ordinary pay of a private; this is naturally insufficient to keep the home together on anything like the standard of living that has hitherto been attained. In many cases also financial difficulties may arise because securities cannot be realised, or loans negotiated.

It is obvious then, since there is no central organisation or general fund to meet the distress already so prevalent, that the need for such a fund is very great.

During the last few weeks, therefore, there has been in process of formation an organisation to be called the *Professional Classes War Relief Council.*

This Council is composed of the nominees of the majority of the principal professional institutions, such as the architects, surveyors, engineers, musicians, authors, etc., etc., as well as representatives of the chief societies engaged in relief work (in order to promote valuable co-operation), with the result that it is a very representative and powerful body of business men and women.

The Council does not propose to offer any form of charity in relief, as this would naturally be both impossible and undesirable, but it does propose to give certain centralised forms of assistance, which will, it is hoped, tide over the critical period of the war, enabling people so severely hit to resume their normal status when the war is over.

The majority of the professional societies have their own benevolent funds; these are and must remain quite independent, but it will ensure the most adequate return for outlay being obtained if certain forms of assistance are centralised and made available for their use.

The chief forms of assistance arranged are in matters of education, training, emigration, maternity aid and temporary employment, all of which are worked under separate representative sub-committees of men and women whose positions and capabilities fit them especially for dealing with their special departments.

For example, the Education Committee is composed of the presidents of the principal scholastic associations, and has as its objective the arrangement of co-operation with the proprietors and governing bodies of schools by which children, whose parents through financial stress are unable to pay the usual school fees, will be maintained at school at reduced fees assisted by a grant from the funds of the Council, thereby ensuring both the continuity of the schools, many of which would otherwise have to close down owing to the withdrawal of pupils, and also the uninterrupted education of the children, which is so vitally important to the national life.

The Training and Emigration Committee proposes chiefly to arrange free training for those professions for which it has been ascertained that openings exist either at home or in the Overseas Dominions. This will apply mainly to men and women in already overstocked professions.

Numbers of Domestic and Emigration Colleges have offered free or greatly reduced trainings to the Council, and these scholarships are immediately available.

The Maternity Assistance Committee proposes to open a maternity nursing home for wives of professional men, staffed by voluntary doctors and midwives. A suitable building has already been generously lent for the purpose. It is also proposed to give free maternity assistance in their own homes, so long as those homes can be kept together. This Committee and staff comprise some of the most well-known men and women in the medical world, including the President of the Royal Society of Medicine and the Treasurer of the Royal Medical Benevolent Fund.

The Temporary Employment Committee has been organised to develop opportunities for temporary employment in works of public and national utility, both for men and women.

It has also been found necessary to meet the demand for immediate relief while people are waiting to be placed in permanent work. The Women's Emergency Corps and the National Union of Women's Suffrage Societies have opened certain temporary work-rooms for needlework, toy making, etc., for professional women, which they have arranged to make available to nominees of the Council.

It will be seen how far-reaching and important the work of this Council is, for it affects not only the conditions immediately confronting us while the war lasts. It may develop on such lines as would be of permanent value in forming a centre for all information relative to the conditions and opportunities of employment in the various professions.

It is necessary to form a central fund to carry on this great work, this fund being used to organise and maintain the various forms of assistance proposed; to help those members of professions which are not organised and have therefore no benevolent funds; to provide assistance for the families of professional men who have given up all to enlist for the service of their country.

All those who have this very real need at heart are earnestly invited to give practical support by sending donations to the Treasurer, Professional Classes War Relief Council, 13 and 14, Prince's Gate, S.W. Cheques to be crossed Messrs. Coutts and Co.

CORRESPONDENCE.

FROM OUR SPECIAL CORRESPONDENTS AT HOME.

SCOTLAND.

Administration of the Insurance Act in Scotland.

At the second annual meeting of delegates of the Scottish Association of Insurance Committees, held in Edinburgh on the 31st ult., the Chairman (Mr. R. D. M'Ewan, Glasgow) and others spoke of the unsatisfactory state of matters presently existing in connection with the supplementary grants in aid of sanatorium benefit. The complaint was made that Scotland was only getting £11,000 out of the additional £100,000 the Government had granted. This worked out at 1¾d. per insured person, and the view was expressed that the 6d. lost to the Sanatorium Benefit Fund by being given to the doctors should be made up. After a discussion on the maternity benefit, it was agreed that there was no necessity to take the matter out of the hands of the approved societies. A motion was carried to the effect that the Insurance Commissioners should make a regulation legalising donations to hospitals by Insurance Committees. The point was raised in connection with Leith Hospital, the funds of which have suffered greatly, but the Leith Committee, though they wish to do so, cannot subscribe towards the maintenance of the institution.

Sir James Leishman, Chairman of the Scottish Insurance Commissioners, in discussing the general working of the Act, said that the unsatisfactory position of Insurance Committees with small numbers of insured persons in regard to administrative expenses, had now been put right. The medical service was generally satisfactory, except in some parts of the Highlands, where it needed strengthening, and that was now being done by special grants. The Commissioners were not so well satisfied with the approved societies, and the complaints as to the way in which medical certificates for sickness benefit were granted were numerous, and in some cases justified. Steps were being taken to reduce the burdens of approved societies from this cause.

The question of drugs had received their constant attention from the outset, and the Scottish chemists had supplied medicines and appliances which were beyond criticism. There was no evidence of any restriction of drugs, but there was evidence of too lavish prescribing, and that articles, such as foodstuffs, which were not required had been ordered. He quoted several statements to show that all concerned, chemists, doctors, and Insurance Committees, were agreed that the present drug fund of 1s. 6d. was ample in all normal circumstances. He urged that the building of sanatoriums should be proceeded with just now, as all the hospital accommodation in the country would be taxed to provide for wounded soldiers. With regard to donations to hospitals, the view of the Commissioners was that these donations should not come out of the benefit funds, which were already mortgaged to doctors and chemists, and that until the other fund—general purposes fund—could meet its other obligations, subscriptions and donations could not be given from it, to however worthy an object.

The whole insurance scheme in Scotland was just getting into smooth water when the war broke out, and nearly 100,000 persons had joined the forces and came under the Army and Navy funds. The income of the insurance funds in Scotland was practically the same as last July, which suggested that there was little unemployment. Half the staff of the Commissioners had joined the colours, and many doctors had also gone, but those who had remained had taken on the extra work and done exceedingly well. The nursing grant would have to be delayed, on account of the difficulty of getting nurses now, and the grants for lectures, clinics and laboratories would have to be postponed. The closing part of the discussion centred round the question of a central bureau for the checking of prescriptions, as to which Sir James spoke very plainly. Unless they started a central scheme now, he said, they would have all sorts of vested interests growing up, and would be tied to an expensive, inefficient, local scheme. Local committees, especially small local committees, would not exercise their functions, simply because one particular man did not want to offend another. What was wanted—and this was the point which was rammed home to him by doctors and chemists—was a central authority which would act impartially.

Royal Faculty of Physicians and Surgeons.

At the annual meeting of the Fellows of this Faculty, Dr. John Barlow was re-elected President; Dr. Ebenezer Duncan, Visitor; Dr. W. G. Dun, Treasurer; and Dr. Alexander Napier, Honorary Librarian. The following new councillors were elected:—Dr. James A. Adams, Dr. Freeland Fergus, and Dr. Robert Jardine. The Fellows unanimously agreed to subscribe 100 guineas to the Prince of Wales's Fund and 25 guineas to the Belgian Relief Fund.

The Health of Glasgow in 1913.

In his report upon this subject, Dr. A. K. Chalmers, the Medical Officer of Health, estimates that in the middle of 1913 the population of the city was 1,032,228. The excess of births over deaths explains fully one-half of an apparent increase of over 17,000 in population since the previous year. Also many empty houses have been re-populated. The death-rate in 1913 was 17.141 per 1,000, as compared with 16.264 in the preceding year. The largest increases were due to whooping-cough, diarrhœa and enteritis. Diphtheria, enteric fever and measles showed small decreases. There was an increase in tuberculous diseases, malignant cancer, and diseases of the nervous system. The principal decreases occurred among diseases of the respiratory group, diseases of the circulatory system, and septic diseases. Infant mortality was slightly more, amounting to 129 per 1,000 births, practically one-third being due to immaturity.

Municipal Elections.

Of the medical candidates in Glasgow, one, Dr. James Erskine, has been successful in regaining his seat in the Town Council, which he temporarily lost. Dr. Erskine stood as a labour candidate, but it is understood reserves a certain freedom of action. The other medical candidate, Dr. R. B. Lothian, was unsuccessful. He was opposed by a labour candidate and another.

Lieutenant Huggan, R.A.M.C.

This gentleman was a well-known Scottish Rugby Internationalist. The circumstances of his death at the seat of war have now been made known. He had volunteered for field duty where he could attend cases in the fighting zone. In the course of his work in this sphere he had gathered a number of wounded men into a cave. One of them was a German officer. In order to have more light to attend to this man's wounds, Lieutenant Huggan took him outside, when a shell came and killed them both.

Proposed Hospital at Ayr.

To relieve somewhat the pressure upon the hospitals in Glasgow, it is proposed to establish, with the approval of the War Office and under the auspices of the British Red Cross Society, a Red Cross Hospital at Carrick House, Ayr, the use of which has been kindly offered by Mrs. Arthur.

Additional Motor Ambulance Waggons.

Six additional vehicles of this kind were shipped from Glasgow on 5th inst. to augment the fleet of waggons employed by the Scottish Branch of the British Red Cross Society in connection with the Scottish Hospital in France. Four of the six are Wolseley waggons and two Albions. Of the Wolseleys, three were provided out of the *Glasgow Herald* branch of the National Relief Fund, while the fourth was the gift of an anonymous donor. The waggons provided through the *Herald* fund have been named "John Hunter," "William Cullen," and "James Syme." Two others, previously provided through it, bear the names "Lord Lister" and "James Young Simpson." Two Argyll waggons will be sent later from Glasgow to add to the above.

Stobhill Hospital.

Stobhill Hospital, Glasgow, is now entirely in the hands of the military authorities, the Parish Council having meantime relinquished it. Further contingents of wounded have arrived.

BELFAST.

A batch of 130 wounded soldiers has just arrived in Belfast from the front. Most of the men have been injured within the last week at the battle of the Yser. They were allocated as follows:—60 to the Royal Victoria Hospital, 30 to the Mater Infirmorum, 29 to the military hospital at Victoria Barracks, and the remainder to Downpatrick and Omagh.

The Medical Board of the Ulster Volunteer Force has offered a fully-equipped hospital of 100 beds in the Exhibition Hall, Belfast, to the War Office. This offer has been accepted.

The same body has handed over to the St. John Ambulance Association its Voluntary Aid and Nursing detachments in Belfast and a most impressive ceremony was held in the Ulster Hall on the 3rd inst., when Lord Ranfurly formally took these over on behalf of the Association.

LETTERS TO THE EDITOR.

[We do not hold ourselves responsible for the opinions expressed by our Correspondents.]

YOUNG SOLDIERS AND SOCIAL DISEASE.

To the Editor of The Medical Press and Circular.

Sir,—A Committee of the Liverpool Medical Institution have had especially written and printed suitable literature for soldiers, directing their attention to the dangers of the venereal diseases. In our opinion, this matter is of more importance than the question of drink. A man may recover from a drinking bout, but with the other infection he is only so much lumber on service. We are anxious to interest commanding officers' chaplains, medical men and others who are in a position and would undertake to distribute these pamphlets among those for whom they are intended. They will be supplied free so far as our funds admit. Correspondence is invited, and letters addressed to the Librarian, Liverpool Medical Institution, will receive attention.

I am, Sir, Yours truly,
M.A., M.D.

Liverpool,
November 7th, 1914.

THE MEDICAL DEFENCE UNION AND BOGUS PRACTITIONERS.

To the Editor of The Medical Press and Circular.

Sir,—May I be allowed to state that the successful prosecution of the unqualified medical practitioner, Robert Reginald Renton, alias Wing, at Sheffield, referred to in your last issue, was carried out by the Medical Defence Union, a warrant having been obtained for the man's arrest by the Union shortly after the inquest was held to which your Editorial refers. The penalty ordered to be paid has proved irrecoverable, and the alternative imprisonment, therefore, is borne by the defendant. In this case, as in so many actions with which I have to deal each year, *The Medical Register* is little or no protection to the public against unqualified practice; indeed, in many instances it is a source of danger. Names and qualifications of practitioners upon the *Register* "residing abroad" are continually being assumed by impersonators with perfect impunity as far as the statutory authority is concerned, and were it not for the detective work done in this office and the valuable aid of the Public Prosecutor, successful convictions would never be obtained. The General Medical Council has apparently no machinery whatever with which to cope with these cases or to proceed against the offenders, and the whole cost of detection, collecting evidence, and preparing the cases for prosecution rests upon the Medical Defence Union solely. A very grave case of impersonation and forgery of death certificates will be tried in a London Police Court this week, the detection of which was entirely due to the Medical Defence Union.

I am, Sir, yours truly,
A. G. BATEMAN,
General Secretary.

Medical Defence Union,
4, Trafalgar Square, London,
November 4th, 1914.

THE HOUSE SURGEON DIFFICULTY.

To the Editor of THE MEDICAL PRESS AND CIRCULAR.

SIR,—I see by your last issue that the Hulme Dispensary, Manchester, has been advertising in the medical journals for three months for a house surgeon at a salary of £180 and upwards, with furnished apartments, coal and gas, yet the vacancy is not filled. Evidently there is a scarcity of young medical men, and even ship surgeons can now command £20 per month.

How is it that the Dublin hospitals pay their house surgeons at such a low rate—generally £1 per week, without board—and in some cases the visiting staff take the fees for inquests, which should be the perquisite of the house surgeons? It may be said that the experience gained makes up for the deficiency in cash; but the experience gained and the opportunities for operating are no greater in England, yet the salary there is three or four times greater.

I am, Sir, yours truly,
"D. M."

Dublin,
November 7th, 1914.

THE WORK OF THE LONDON POLYCLINIC LABORATORY.

To the Editor of THE MEDICAL PRESS AND CIRCULAR.

SIR,—Gratifying promises of support enable me to announce that the work of the Polyclinic Laboratory will be continued at 4 Bloomsbury Square, where specimens will receive my prompt and personal attention. As hitherto, earnest effort will be made to ensure that every report shall be of practical help, both in diagnosis and treatment, therefore any clinical notes will be welcomed with the specimen sent for examination.

The Laboratory will be always open, and the work will be conscientiously done at the customary fees. Special attention will be given to private instruction in all branches of clinical pathology.

I shall be delighted to see all my old and new friends every Thursday afternoon, 4—6, but individual visits will be at all times heartily welcomed by

Yours truly,
WYATT WINGRAVE.

4 Bloomsbury Square, W.C.,
November 4th, 1914.

P.S.—Postal tubes and the necessary apparatus for collecting material will be at once forwarded on the receipt of a postcard.

TEMPLE OF ÆSCULAPIUS?

To the Editor of THE MEDICAL PRESS AND CIRCULAR.

SIR,—I have had in my possession for a good many years a tablet of white marble which bears the inscription, "Temple of Æsculapius, Cyrene." Now, this I believe to be a misnomer, and, indeed, I have been informed that it is, and that the inscription should read, "Temple of Apollo." Æsculapius, of course, was a heathen deity as well as Apollo, and had temples erected in his honour in various parts of Greece, very appropriately on the sites of healing springs or on the tops of mountains. But I do not know of him having been so honoured elsewhere, particularly in the ancient city of Cyrene, in North Africa, where, however, there was a Temple of Apollo. Therefore, I think "Temple of Apollo" is right. Perhaps some of your readers can throw light on the matter. Although not such a "specialist" as his son Æsculapius, Apollo also had the healing art under his protection.

I am, Sir, yours truly,
INQUIRER.

November 6th.

PORTRAITS OF IRISH PHYSICIANS.

To the Editor of THE MEDICAL PRESS AND CIRCULAR.

SIR,—I shall be greatly obliged if any of your readers can give me information as to where a portrait or a photograph of any of the following Irish medical men would be likely to be found. They were all prominent in the medical profession in Dublin during the last century, and each was President of the Royal College of Physicians.

It is probable that some of their descendants are still living in the country, and may be known to some of your readers. Any information that will lead to their discovery will be greatly appreciated.

I am, Sir, Yours truly,
T. PERCY C. KIRKPATRICK,
Registrar, R.C.P.I.

23 Lower Baggot Street, Dublin.

Arthur Saunders	Died after	1810
William Harvey	,, ,,	1817
Francis Hopkins	,, ,,	1819
Edmund Cullen	,, ,,	1804
Charles William Quin	,, ,,	1819
Alexander Pelissier	,, ,,	1817
James Cleghorn	,, ,,	1826
Anthony Gilholy	,, ,,	1817
Hugh Ferguson	,, ,,	1833
James Callanan	,, ,,	1820
George Francis Todderick	,, ,,	1821
Robert Bredin	,, ,,	1822
Samuel Litton	Died	1845
John O'Brien	,,	1845
Charles Richard Alexander Lendrick	,,	1841
George Alexander Kennedy	,,	1865

THE GENERAL MEDICAL COUNCIL AND ILLEGAL PRACTICE.

To the Editor of THE MEDICAL PRESS AND CIRCULAR.

SIR,—In discussing the actions or inactions of the Medical Council, it is necessary to bear in mind the statutory limitations within which it is confined. Its functions are almost entirely confined to supervision of education and to compilation and maintenance of a Register of practitioners. It possesses disciplinary powers, but these are restricted to registered men. It has no power whatever to interfere in any way with unqualified practitioners, or with quacks of any degree of infamy. It can strike a name off the *Register* for infamous conduct; but cannot interfere with the offender if he pleases to practise afterwards, and to use his titles with the prefix "ex" before them. It has been common for those men to advertise themselves as ex-M.R.C.S. and L.R.C.P., etc. The Medical Council is not to blame for many of its apparent shortcomings. The blame lies upon the law. The Report of the Committee on Secret Remedies has incidentally demonstrated this fact, and it will be the fault of the profession if, when Parliament meets again under normal conditions, the first steps towards complete and drastic medical law reform are not speedily taken. The unanimous Report compiled by a Committee of first-rate quality has placed in the hands of the profession an irresistible argument for drastic reform. The reference to practising quacks at foot of p. 10 of the Report shows that the quality of these gentry was fully recognised by the Committee, albeit unfortunately they were not instructed to deal with them. They enumerate the classes and style them "swindlers and fakers." A Select Committee on those rascals can be had for the asking when Parliament meets. It can then be shown also that reconstitution of the Medical Council and wide enlargement of its powers are indispensable in any legal scheme for protection of the public and profession against fraudulent and unqualified practice.

In the meantime I would again entreat every member of the profession to obtain and read (most interesting reading) the Report of the Select Committee. It costs only 3d. The verbatim Report of the evidence costs 6s. 7d. It constitutes a wonderful story of cynical knavery and of human credulity—more instructive and amusing than any literary work of the same size and cost, and of the present day that I am acquainted with.

I am, Sir, yours truly,
Henry Sewill.

The Old Rosery,
Earlswood Common,
November 5th, 1914.

OBITUARY.

CAPTAIN R. G. KINKEAD, R.A.M.C.

We have learned with great regret of the death on the field of battle of Captain Richard George Kinkead, R.A.M.C., only surviving son of Professor R. J. Kinkead, of Galway, one of the leading medical men of the West of Ireland. George Kinkead received his medical education at the Queen's College, Galway, and the Richmond Hospital, Dublin, and graduated M.B. of the Royal University of Ireland in 1908. After a year in the Coventry and Warwickshire Hospital as Assistant House Surgeon he joined the Royal Army Medical Corps. When war broke out he was in South Africa, but was soon brought home and attached for service to the 10th Hussars. He was killed in action on October 31st.

The following extracts are from Captain Kinkead's last letter, written on October 26th, which reached home a couple of hours after the telegram from the War Office announcing his death:—"I am fit and well and sound in wind and limbs, except for pains in back and legs from overstrain of the muscles, due to lifting men out of the trenches and carrying them back. We have to do it, as the trenches are very small, and one or two wounded men fill up a whole trench, so they must be got out unless the fire is too hot. We had a day's rest yesterday, but are in the trenches again to-day; came in last night, and it was a wet, miserable night.

"One sees in a war like this the sort of stuff our officers are made of. They are mostly 'top-hole' chaps, worshipped by the men; and if there are shells, etc., flying, they use this to lead their men by example. Even when the things burst over one's head, one must not duck or jump—the men would see it. You would be surprised to see how quickly the men follow one's example. I hope after the war Tommy will get the recognition that is due to him, because he is one of the very best.

"The other day a farm, where I had been sleeping in a barn, was shelled and set on fire. My corporal, thinking I was still asleep, went into the blazing barn to fetch me out, and was not satisfied until he had searched the whole place. Now, this corporal was one of the 10th Hussars, and has only known me since I came to the regiment, just over two months."

Kinkead's own spirit can be judged from these extracts. We can assure Professor Kinkead of the full sympathy of the profession in the loss of his son, a gallant officer and one of exceptional promise.

DR. R. D. MUIR, OF HATCHAM.

We regret to record the death of Dr. Robert Douglas Muir, of The Limes, St. James', Hatcham, which took place at Broadstairs on the 29th ult. The deceased, who was 45 years old, had been in bad health for some time. He held the qualifications of M.D.Brux., M.R.C.S., L.R.C.P.Lond. Dr. Muir was well known in New Cross and district, for he held many positions, including those of Hon. Physician to the Club and Institute Union Convalescent Home and the Medical Officership of the Sons of Temperance, being also Lecturer and Examiner to the St. John Ambulance Association. He was an ex-President of the West Kent Chirurgical Society, a member of the British Medical Association and the New Cross Medical Society, and at one time Medical Officer of the outpatients' department at the Miller General Hospital, Greenwich Road, Resident Medical Officer at Queen Charlotte's Hospital, and House Surgeon at Charing Cross Hospital. Dr. Muir had been actively engaged for upwards of 20 years in religious work in St. James's Parish, where he was highly respected. In addition he represented the London County Council as a Manager of St. James' Schools. He leaves a wife, a daughter and three sons, with whom the greatest sympathy is felt.

REVIEWS OF BOOKS.

DIETETICS (a)

To be fed "with food convenient" for one's state of health and to be sustained with nutriment that is cheap, satisfying, and readily procurable, have been the desires of all mankind throughout the ages. From a dim apprehension of the fact that certain foods were bad in certain physical conditions to the fuller knowledge of the *rationale* of the dietetic restrictions imposed in disease, the march of progress has been slow but steady. At the present time the art of feeding the healthy person, as well as the invalid, may be considered as constituting no small part of the science of therapeutics. Indeed, as the author of the present work states in his preface, "the study of dietetics and its practical application would benefit fifty per cent. of the physician's clients when they are sick, and is no less important as a branch of preventative medicine." It must be acknowledged that sufficient attention is not paid to dietetics in the medical curriculum, in proof of which assertion may be mentioned the embarrassment often felt by young and inexperienced resident medical officers who are wont to order "something light" for their patients, without specifying the kind of diet in the least. Not infrequently one sees in hospitals the dieting of young infants, as well as of older patients, relegated entirely to the sister in charge of a case, the vaguest supervision being exercised by the medical officer. Dr. Tibbles' ably written and most comprehensive book is the very thing that is needed to enable the practitioner to order the right kind of food for his patient under all the varying circumstances of health and disease. The first part of the work deals with food values and the digestibility of the various foodstuffs, and a really intelligible account is given of the metabolism of the proximate principles and of the fate of the principal chemical elements in the body. The influence of the personal equation is insisted upon in estimating the amount of protein food necessary for the organism, and we are glad to see the caution given that until "we have a greater experience of the low-protein diet, we should be careful in our judgment." Again, on p. 118 it is stated that the "evidence that the amount of protein prescribed by the standard diets is injurious to the organism is not conclusive." In discussing army dietaries, the British war ration supplied is given as yielding 4,034 calories of energy, the amount estimated by Colonel Melville as being the total average daily expenditure of a soldier on the march. The German war ration, on the other hand, is calculated to yield 3,442 calories of available energy. It has become a truism that an army marches upon its stomach, and recent experiences in the present war have shown the necessity for feeding liberally the men in the field. The deficiency in the supply and absorption of protein is stated to be one of the greatest disadvantages of the vegetarian dietary, and those who adopt this mode of living may receive a shock to be informed that it is the general experience that meat gives a greater degree of energy than peas or beans. The different "cures" by diet are each carefully described, and the opinions of both schools of thought are fully quoted in regard to the use and abuse of alcohol. The author's position in this respect may be summed up by his remarks on p. 253, where he declares that "the benefits derived from alcohol by persons in health could be obtained from other foodstuffs. Very few people would be any worse if they did not take it, and very many would be better if they abstained from it."

(a) "Dietetics: Or Food in Health and Disease." By William Tibbles, LL.D., M.D., L.R.C.P. Demy 8vo. Pp. x. and 627. London: Bailliere, Tindall and Cox. 1914. Price 12s. 6d. net.

In the second part the diseases of the various systems of the body are treated of, with special reference to the best kind of food that should be ordered in each case of deviation from health. And here, let it be noted, are no vague directions. Typical meals and diets are set forth plainly and distinctly for acute and chronic gout, epilepsy, mucous colitis, dropsy, eczema, arterio-sclerosis, and so on. Articles of food to be avoided are mentioned specifically in each case. Every practitioner should read the chapters upon the dietetic treatment of consumption and typhoid fever, which are full of practical detail and sound common-sense. The concluding chapters deal with vitamines, lipoids, and the deficiency diseases. Enough has been said to show the character of this most excellent work, which must prove invaluable to medical men in every class of practice.

EXAMINATION OF THE URINE. (*a*)

Many of us know Husband's "The Urine in Health and Disease." On it the greater part of the book under notice is founded—that is, the section on uranalysis. Although the fact is not mentioned in the title, the examination of the blood, gastric contents, and fæces occupies a large part of the book—73 pages out of the 197 composing the text. All four sections are ably dealt with. The accounts of the various processes are concise and accurate, and the headed paragraph and tabular method are effectively employed. There are 31 line illustrations, mostly showing the appearances of urinary crystals and of the various apparatus described in the text. They are clearly drawn and are excellently calculated to fulfil their function. The format of the book is essentially convenient. The pages measure three inches by five, and the use of paper which, while thin, is quite opaque, prevents any tendency to bulkiness. The type is clear and not too small. On the whole, Mr. Hewat has given us a most handy and useful little volume, which should be in the pocket of anyone who is often called on to perform the work included in its scope, and on the bookshelves of all other physicians and students.

THE BACKWARD CHILD. (*b*)

There can be no question that the study of the backward child presents a problem of paramount importance, and requires much careful thought for its elucidation. In the past this branch of study has been much neglected, but there is every reason to hope that this accusation will not hold good in the future. We therefore cordially welcome Mrs. Morgan's book, which should be of much practical service to all those called upon to deal with backward children. The book is a radical departure from present psychological lines of work in two ways. Its aim is an analysis of mental faculties to find the cause of individual backwardness rather than the mere classifying of mental defectives; and its subject matter is the backward child who will remain in the community rather than institutional cases. The book is based on practical experience obtained at an experimental clinic conducted for two years in New York City, in which children were tested and then trained in the particular deficiency which that examination had revealed, and therefore the work can be claimed as first-hand knowledge. The various tests to be applied in the investigation of backward children are described not only minutely and with great lucidity, but also in such a way as to be easily understood by teachers of average intelligence, although it must be admitted that a certain amount of psychological acumen on the part of the examiner is very necessary. The writer of the book makes suggestions as to systems of training to develop the neglected or unexercised functions which are responsible for such backwardness. A very interesting chapter is that giving the case notes of typical backward children, with accounts of their diagnosis and treatment, the types chosen illustrating (1) slow rate of development, (2) nervous intractability, (3) sullen intractability, (4) listlessness, and (5) hysteria. The book certainly traverses new ground and ought to be widely read and carefully studied. Throughout the keynote has been simplicity, and the importance of individual investigation and treatment is emphasised.

TRANSACTIONS OF THE ROYAL ACADEMY OF MEDICINE IN IRELAND. (*a*)

The thirty-second annual volume of the Transactions of the Royal Academy of Medicine in Ireland, consisting of contributions of the Fellows of that institution during the past academic year, presents a collection of papers of curiously uneven scientific merit. The opening article, on the "Pathology of Œdema," by Dr. W. G. Smith, is a valuable and lucid summing up of the present state of knowledge in regard to causation and development of dropsy. Other papers of interest contributed to the medical section are those of Dr. W. M. Crofton on "Causes of Failure in Vaccine Therapy," and of Dr. C. M. O'Brien, summarising his experience of eleven years in the treatment of superficial cancers with radium. Drs. T. G. Moorhead and A. Stokes contribute a short and interesting note on "Endocarditis Lenta." One of the most suggestive papers in the volume is that by Dr. Wm. Boxwell on "Disordered Bladder Function in Nervous Diseases." He criticises from the clinical point of view the conventional teachings concerning the nervous mechanism of incontinence.

Save for one interesting article on the "Radical Treatment of Chronic Osteomyelitis," by Mr. Seton Pringle, the level of the surgical papers is not up to that of former years.

The obstetrical and pathological section contains the admirable reports of the Rotunda Hospital by Drs. Jellett and Rowlette; a very interesting article on "Gynæcological Urology," by Dr. Gibson; and an instructive article on the "Use of Pituitrin in Labour," by Drs. Madill and Allen, of the Rotunda Hospital.

Professor McWeeney contributes a long article on the Wassermann reaction, in which he maintains the greater accuracy of the "original" *technique*, as compared with modifications such as Birt's or Fleming's.

Not the least interesting article is one by Dr. Kirkpatrick on the "Origin of Some of the Dublin Hospitals." The volume as a whole is disappointing, and does not do justice either to the teaching capabilities or wealth of clinical material of the Dublin Medical School. The reporting of discussions is slovenly—not to say illiterate.

ASTROLOGY IN MEDICINE. (*b*)

Dr. Mercier, in choosing astrology in medicine as the subject of his FitzPatrick Lectures, took a subject which has filled a great past in the history of medicine. Astrology had a known history of some 6,000 years—it occupied great minds from the old Chaldean star-gazers down to John Dryden. For a great part of that time it was regarded as forming, if not the basis, an integral part of the practice of medicine. And if Dr. Mercier does not succeed in teaching us how to "cast a geniture, or rectify a nativity," he certainly tells us a great many other interesting things. He shows how astrology was the physician's guide both in prognosis and in treatment. Drugs potent with good at one period might be equally potent with evil at another. Dr. Mercier succeeds in showing us the inherent absurdity of astrology—no difficult task, surely. Indeed, Dr. Mercier rather wastes his humour on

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(*a*) "Examination of the Urine and Other Clinical Side-Room Methods" (late Husband's). By Andrew Fergus Hewat, M.B., Ch.B., M.R.C.P.Ed. Fifth edition. Edinburgh: E. and S. Livingstone. 1914.

(*b*) "The Backward Child: A Study of the Psychology and Treatment of Backwardness." By Barbara Spofford Morgan. With an introduction by Elizabeth E. Farrell (New York). London and New York: G. P. Putnam's Sons, The Knickerbocker Press. 1914.

(*a*) Transactions of the Royal Academy of Medicine in Ireland." Vol. xxxii. Pp. 408. Dublin: Falconer

(*b*) "Astrology in Medicine: The FitzPatrick Lectures delivered before the Royal College of Physicians on November 6th and 11th, 1913, with Addendum on Saints and Signs." By C. A. Mercier, M.D. Pp. 100. London: Macmillan and Co., Ltd. 1914. Price 2s. net.

astrology. We would have liked his lectures better had he given us some help to comprehend how the study could have attracted and held great minds for so many centuries.

THE WAR IN BULGARIA. (*a*)

This delightful volume by the famous Brussels surgeon is of special interest at the present time. Prof. Laurent gives a very vivid description of his experiences during the recent Balkan campaign. The first portion of the work is devoted to an interesting account of the scenes of battle and the nature of the country. The second portion deals with the conditions encountered in the wounded on the field of battle. These descriptions are clearly portrayed by Prof. Laurent's skilful pen, and the language is made all the more striking by means of a wealth of excellent illustrations after actual photographs. The book fully bears out the contention that war is a horrible affair, to be greatly dreaded by humane races such as ours, and makes us feel that a time must come when our death-causing machines will for ever be set aside and peace reign among the nations. Prof. Laurent's book is most interesting to study, and conveys to the reader a striking word-picture of the nature of the wounds met with in modern warfare together with the best measures for dealing with them.

ZOOLOGY. (*b*)

The present edition, the sixth, of Dr. Thomson's well-known book has been brought thoroughly up to date, and we have no hesitation in saying that as a trustworthy guide to the science of zoology the student will find here all that he needs in order to acquire a comprehensive grasp of the subject. The views of classic writers, as well as those of contemporary biologists, are freely drawn upon, but the author never leaves the discussion of a complicated subject without endeavouring to emphasise facts—in other words, he is sufficiently dogmatic to strike conviction into the mind of the student. The whole field of zoology is covered in a succinct and intelligible manner, from the protozoa to man. In many sections of the book the relationship of the type or species under consideration to the cause or dissemination of disease is pointed out. Of much interest, too, are the œcological details of insects, fishes, and birds. Special mention should be made of the tables of contrast between various classes or species which are of great value to students preparing for examinations in biology. A biographical appendix is added and the index is unusually full. A word of praise must be given to the excellent cuts with which the book is illustrated; they are wisely chosen and add greatly to its educational value. We can recommend this text book with every confidence.

QUANTITATIVE ANALYSIS. (*c*)

This volume is written on somewhat novel lines. It is divided into two distinct parts. One deals with a general consideration of the subject, while in the other each substance is taken up individually. The importance of molecular weight determinations has been carefully kept in view. In the concluding chapter of the book some standard methods for the analysis of certain organic bodies of technical importance are collected together. These afford the student a very good general idea of how to carry out these technical estimations. Such bodies as alkaloids, phenols and acids are very fully dealt with. The arrangement adopted by the authors is based on a series of lectures given by Dr. Whiteley at the London Imperial College of Science and Technology, and is, we consider, a most excellent one. The book will be found a most useful and helpful guide to quantitative organic analysis, for it contains a clear and accurate statement of the most modern approved methods. Its use will save the worker trouble in referring to journals in which scattered references are made to many of the methods included in this unique volume. It is an extremely practical and useful work.

NEW PREPARATIONS.

"MERSALV."

We have received from M. Bresillon and Co., Gamage Buildings, London, E.C., a specimen of a non-greasy preparation, of pleasant odour and creamy consistence, containing ten per cent. of metallic mercury. The metal is present in an exceedingly fine state of subdivision, and "Mersalv," on account of its cleanly appearance, should popularise the method of mercurial treatment by inunction, by means of which it is well known that patients can be brought rapidly under the influence of the drug. No irritation of the skin is said to follow its use, nor does it soil the underclothing. One drachm is rubbed in *lightly* at bed-time until the skin is dry. "Mersalv" is supplied in white ceramic pots, holding sufficient for 15 and 30 days' treatment, at 4s. 6d. and 7s. 6d. per pot.

"URASEPTINE."

From the same firm comes also a specimen of a granulated product, soluble in water, known as "Uraseptine." As its name implies, it is a urinary antiseptic, being composed of piperazine, urotropine, helmitol, and the benzoates of sodium and lithium, containing 50 cgm. of active matter to each teaspoonful. It is also a solvent of uric acid and phosphates, as well as being a mild, non-toxic diuretic. "Uraseptine" is therefore indicated in cases where a sedative and disinfectant action is needed upon the urinary tract, while it is also of use for the rapid elimination of uric acid and urates. The dose is two to six teaspoonfuls daily.

"IODEOL" AND "IODARGOL.".

From Messrs. E. Viel et Cie., 118-112 Holborn, E.C., come specimens of two new colloidal preparations of iodine prepared by electro-chemical action. "Iodeol" is colloidal iodine the particles of which are kept stable by suspension in a neutral oleaginous vehicle. In this form iodine possesses a high degree of antitoxic and bactericidal action, and it has a powerful action on the phenomena of leucocytosis and the production of anti-bodies. Hence it has been used with success in the treatment of pulmonary and other forms of tuberculosis by intra-muscular injection of 1 c.c., equal to 0.2 gm. of colloidal iodine. It may also be administered internally in gelatin capsules containing 0.25 c.c. in cases of acute pulmonary infective processes. "Iodeol" may be applied externally, and it is ten times more active than tincture of iodine.

"Iodargol" is pure colloidal iodine, identical with "Iodeol," only differing from it in that each ampoule contains 0.4 grm. of electro-chemical colloidal iodine. Its bactericidal and non-caustic properties are specially indicated in gonorrhœal urethritis, in which disease injections of 2 c.c. may be given with a bulbous-ended syringe into the urethra and retained for ten minutes. It is claimed that by this means the acute stage is much diminished in length and intensity.

MEDICAL NEWS & PASS LISTS.

Medical Mayors.

The following members of the medical profession have been elected or re-elected to the office of Mayor of their respective boroughs for the ensuing year:—Lord Mayor: Dr. W. G. Gordon Munn (Norwich). Mayors: Dr. Hale Puckle (Bishop's Castle, re-elected); Dr. S. R. Alexander (Faversham, re-elected); Dr. J. P. Atkinson (Saffron Walden, re-elected); Dr. N. Jones Evan (Pwllheli, re-elected).

(*a*) "La Guerre en Bulgarie et en Turquie par le Professeur Dr. Octave Laurent." Illustre de 302 photographies. Paris: A. Maloine. 1914. 6 francs.

(*b*) "Outlines of Zoology." By J. Arthur Thomson, M.A., I.L.D., Regius Professor of Natural History in the University of Aberdeen. etc. Sixth edition, revised, Pp. xxi., 855, with 424 illustrations. Henry Frowde and Hodder and Stoughton. 1914. Price 12s. 6d. net.

(*c*) "Methods of Quantitative Organic Analysis." By P. C. R. Kingscott, D.I.C., A.R.C.Sc., B.Sc.Lond., and R. S. G. Knight, D.I.C., A.R.C.Sc., B.Sc.Lond. London: Longmans, Green and Co. 1914. 6s. 6d. net.

The Irish Association of Women Graduates.

At the annual general meeting of the Association, held in Dublin on the 30th ult., under the presidency of Professor Hayden, M.A., Dr. Kathleen Lynn made a statement on the question of women doctors on the staffs of general hospitals. A discussion followed, and the matter was referred to the General Council of Medical Women. The meeting passed a vote of sympathy with Dr. Isabella Mulvany on the death of her nephew, killed in action; and with Miss Hanan on the death of her father.

A Salford Citizen's Bequests to Hospitals.

Under the will of the late Mr. Jas. Grimble Groves, of Springbank, Pendleton, Salford, formerly Unionist M.P. for South Salford, the Salford Royal Hospital receives £1,000 for the endowment of a bed, and the Pendlebury Hospital for Children a similar sum for the endowment of a cot, both to be named after the testator. The Altrincham Provident Hospital and Dispensary also receives £1,000 for the maintenance of the "Colin Cot" provided by him some time ago.

The Royal Colleges of Physicians of London and Surgeons of Ireland

Have decided to adopt the following temporary regulations during the war:—

(*a*) That time spent as assistant on active service in one of his Majesty's ships, or in a naval or military hospital, or any hospital utilised by the naval and military authorities, not exceeding six months, be allowed to count for the equivalent period of medical and surgical hospital practice, and for three months each of the required period of medical clinical clerkship and surgical dressership, provided that a satisfactory certificate is produced from the principal medical officer under whom the assistant serves.

(*b*) That medical clinical clerkships and surgical dresserships served before the Second Examination in Anatomy and Physiology has been passed be recognised.

Army Medical Service.

Supernum. Surg.-Genl. Sir D. Bruce, Kt., C.B., F.R.S., M.B., F.R.C.P., is restored to estab. (November 1st).

The following appointments have been gazetted:—

To be Temporary Colonels.—Lt.-Col. Sir W. P. Herringham, M.D., 1st London (City of London) General Hospital, R.A.M.C., T.F.; Sir Almroth E. Wright, M.D., Capt. F. F. Burghard, M.D., 4th London General Hospital, R.A.M.C., T.F.; Maj. Sir J. R. Bradford, K.C.M.G., M.D., 3rd London General Hospital, R.A.M.C., T.F. (October 10th); W. N. Barron, M.V.O., to be temporary Lt.-Col. (October 21st.)

The following are granted temporary hon. rank of Lieut.-Col.—Maj. H. R. Kenwood, M.B., R.A.M.C., T.F., J. Robertson, M.D., Lieut. J. R. Hill, M.B., from Res. of Off., to be Lieut. (October 30). To be temporary Lieuts.—C. G. Colyer, H. C. Colyer, S. A. Ridett, C. Weller, F. W. Broderick, G. G. Timpson (November 1st). The following are granted temporary rank as follows, while serving with Red Cross Hospl., Netley:—Temporary Majors—C. H. Miller, C. Wallace (October 27th). Temporary Captains—C. Christopherson, J. L. Dickie, M.B., J. N. Hayward, M.D., C. Hitch, H. L. Tidy, M.D., A. C. Hudson (October 27th) Temporary Lieuts.—W. Anderson, M. S. Esler, J. G. Ferguson, M.D., C. Gibson, M.B., J. D. Lyle, M.B., J. F. Mackay, M.D., L. E. C. Norbury, C. Pearson, M.D. (October 27th). Temporary Quatermaster and Hon. Lieut.—A. Buckley (October 27th).

Captains to be Majors.—J. G. Bell, M.B., F. W. W Dawson, M.B., J. E. H. Gatt, M.D., T. E. Coates, M.B., J. C. G. Carmichael, M.B., R. H. Bridges, J. A. W. Webster, F. C. Lambert, R. C. Wilmot, H. B. Kelly, M.B., E. M. Pennefather, B. H. V. Dunbar, M.D., D. Ahern, D. G. Carmichael, M.B., J. M. M. Crawford, T. E. Harty, J. H. Duguid, M.B., B. G. Patch, G. W. G. Hughes (October 21st).

J. Dalrymple to be temporary Captain (October 15th.—W. P. Morgan, M.B. (September 23rd); D. G. Cheyne, M.D. (October 9th); F. F. Brown, M.B., T. W. R. Strode, J. A. Torrens, M.B., T. A. Peel, M.B., E. A. Pearson, M.B., W. J. Nisbet, M.B., M. J. Murray, M.B., N. Matthews, M.B., E. W. Adcock, M.B. (October 10th); M. R. Mackay, M.B. (October 14th); J. E. Cox, H. T. Retallack-Moloney, A. F. Palmer, P. J. Chissell, C. H. Treadgold, M.D. (October 19th); C. Kingston (October 20th); D. Boylan, M.B., W. H. Brown, M.D., J. H. Campain, M.B., G. Cock, V. L. Conolly, M.B., D. H. Collingham, W. J. I. Dwyer, S. H. Gibson, J. C. B. Grant, M.B., F.R.C.S. Edin., A. K. Hamilton, M.B., J. G. Higgins, D. F. Kennard, C. J. Kelly, T. J. Latham, C. G. H. Moore, M.B., A. G. Miller, M.B., A. J. McC. C. Morrison, M.B., A. T. McWhirter, M.B., F. G. Norbury, J. W. O'Farrell, P. J. O'Reilly, J. A. Pringle, M.D., E. G. C. Price, M.B., D. W. Reid, M.B., T. T. Rankin, M.D., P. C. Raiment, J. T. W. Stewart, M.B., A. Stephen, M.B., G. W. Twigg, M.D., R. J. T. Thornhill, M.B., C. H. Thompson, H. A. Treadgold, M.D., G. H. Urquhart, F.R.C.S.Edin., A. W. Weston, M.B., W. M. Will, M.B., J. J. Walsh, R. Williams, W. S. Milne, M.B. (October 21st).

The following have been appointed temporary Lieutenants:—A. Stokes, M.D., F.R.C.S.I. (August 4th); W. T. Chaning-Pearce, M.B. (October 5th); J. Hewat, M.B. (October 9th); R. H. Spittal, M.B., H. W. Powell, E. A. Walker, M.D., T. S. Wright, M.B., E. White, M.B., E. C. Gimson, M.B., W. E. Wallis, M.B., W. W. Forbes, R. Kennon, M.D., F. E. Daunt, M.B., D. J. S. Stephen, M.D., P. A. Opie, M.B., C. G. Timms, G. A. C. Mitchell, M.B., E. Grey, M.B., J. Fleming, M.B., G. S. Woodman, M.B., C. H. Robson, M.B., J. P. Davidson, M.B., W. P. Hogg, M.B., T. Fehily, G. Wilson, M.B., J. Scott, M.B., J. W. McLeod, M.B., B. McC. Smith, M.B., L. Anderson, M.B., M. Bates, M.B., F.R.C.S., J. Cattanach, M.B., H. Goulding Rice, D. R. E. Roberts, M.B., V. D. O. Logan, M.B., E. N. Snowden, M.B., W. P. H. Munden, M.D., J. Fraser, M.B., K. G. Fraser, J. S. Levis, M.B., D. R. Mitchell, M.B., D. J. Stokes, M.B., C. M. Smith, M.B., J. H. V. Scott, M.B., F. J. Wisely, M.B., H. McAllum, M.B., J. McL. Pinkerton, M.B., W. C. Douglass, P. K. Murphy, M.B., A. Wilson, M.B., M. K. Acheson, M.D., R. W. Gemmell, M.B., A. Anderson, M.B., C. K. Graeme Dick, W. G. Gordon, M.B., J. E. Stacey, M.B., J. V. O. Andrew, J. Spence, M.B., J. P. Cahir, M.B., E. F. C. Dowding, T. P. Cole, M.B., J. Parkinson, M.D., J. H. McNicol, M.B., R. J. Wooster, W. MacKenzie, M.B., C. M. Foster, E. W. Alment, C. R. Taylor, M.B., D. W. Hunter, M.B., J. S. Somerville, M.B., T. P. Lewis, C. G. Douglas, M.D., J. W. Flood, R. F. Eminson, M.B., W. E. Hopkins, M.B., R. B. Wallace, M. B., W. B. Watson, M.B., J. Capell, S. Jackson, M.B., J. A. Glover, M.D., N. Reader, M.B., S. Fenwick, M.B., W. E. Fetherstonhaugh, M.B., A. R. Fraser, M.B., W. V. Macaskie, M.B., J. G. Copland, M.B., J. M. Forsyth, M.B., J. H. Connolly M.D., F.R.C.S., J. P. Egan, C. Jackson, M.B., C. Elliott, A. E. Drynan, M.B., H. D. H. Willis-Bund, A. S. K. Anderson, M.B., J. W. Brown, D. S. Harvey, M.B., E. F. G. T. Heap, G. Millar, M.B., K. W. Mackenzie, M.B. (October 10th); F. W. McMillan, M.B. (October 11th).

The following have been granted temporary rank as follows, whilst serving with the Welsh Hospital:—Temporary Lieutenants—F. Armstrong, M.D., F.R.C.S., T. G. Evans, M.D., B. G. Klein, M.D., J. S. Rowlands, M.D. (October 26th).

MEDICAL WAR ITEMS.

Vicissitudes of the War.

A Lieutenant in the R.A.M.C. writes in the *Times*:—"There was a rearguard action with the Germans and I was with one of our field companies which was fortifying positions. As we went along I stopped to dress some wounded and an officer came up and told me there were lots of our wounded in some woods behind, so I rode back to see if I could do anything for them. As I went on I saw some troops about 500 yards off, and, not being sure if they were ours or Germans, turned off towards some woods on the left. They then began to fire on me, so I lay flat on my horse and stuck my spurs in, and we galloped off, hearing their bullets whizz above and below us and all round, but fortunately neither my horse nor I was hit. I then was going back to our troops when I met another officer of ours coming along with an ambulance wagon. He had been ordered to go back, and I could not very well let him go alone, so I turned again with him, hoping we might manage to evade the Germans. We walked right into some of their infantry, however, and were made prisoners. They treated us quite well and bagged most of our kit, after taking our swords, revolvers, and horses. Next day they sent us to a place where they had a field hospital, and 97 of our wounded and some prisoners. We were joined by two other R.A.M.C. officers who had also been captured, so the four of us got to work and looked after our own people, and there was lots to be done and not enough dressings and food. The Germans had about 200 of their own wounded. They said they were going to take us to Berlin and keep us there till the end of the war, but the French came along and drove them away and we were free. Arrangements were made to send back our wounded with two of our officers, and Lieutenant —— and I bagged two German horses and rode for two days through the country to rejoin our units, which we reached in due course. They were quite respectable to us and our prisoners and wounded in that memorable 10 days."

Sir Henry Norman, M.P., and Lady Norman, with Major H. M. W. Gray, F.R.C.S., Lieutenant-Colonel A. H. Lister, M.D., and Dr. A. H. Rabagliati, F.R.C.S., have left for France with a hospital under the British Red Cross Society and St. John Ambulance, and will be away for some time.

University College Hospital, as a section of Queen Alexandra's Military Hospital, provides 100 beds for sick and wounded soldiers. All these beds are now fully occupied by patients drafted during the past week from the base hospitals in France. A large number of regiments are represented, and there are in addition about 20 Belgians. Games and packs of cards for the amusement of the convalescents will be very acceptable.

Lady Muir Mackenzie, writing on behalf of the Women's Imperial Service League, conveys the Committee's most grateful thanks to Messrs. Wright, Layman and Umney, Ltd., drug and chemical manufacturers, for the gift of one hundred one-pound bottles of chloroform and a large quantity of Wright's coal-tar soap, which they have presented for use in the League's newly-established hospital for the wounded in France.

An officer of the Royal Army Medical Corps who was presnt at the battle of Mons contributes his experiences to the *Glasgow Herald* as follows:—

"We have two motor ambulances attached to us. They came but recently, but they are what we want. They make all the difference, and two motor ambulances can do as much work more efficiently and more comfortably than a whole army corps of cavalry field ambulances. I expect our unit will be reorganised, and we shall have all motors.

"The wounded we get are mostly suffering from shell wounds, mostly from big guns, for this is a war of big guns and artillery, and, believe me, the German artillery are good—very good—I know. These wounds are very susceptible to gangrene and tetanus, so we all have anti-tetanic toxin now, and we believe this will reduce tetanus to a minimum. Some of the wounded are very bad, but this is of course to be expected.

"Don't believe all the yarns you hear about German brutalities. But it is true when their men get drink and are away from their officers they are like fiends. I myself dressed a baby thrown on the fire by the Germans because the mother could not supply their demands, and another wee boy with a bayonet wound through his leg for the same reason. These are true; but I think there are some brutes in every army, who without control and with drink are equal to any brutality.

"On the other hand, the fighting Germans have resorted to every mean dodge they could. They took our fellows out of our trenches by raising the white flag and then fired on them. To this I can swear. Again, under cover of the Red Cross they brought up an attacking party. Now we have orders to fire on every German that shows himself. And they have always fired on the Red Cross. The cold weather has now come upon us; the rain and the damp are with us every day; but, thank God, the clothes made by the good women in England have come out, and are distributed amongst the men to keep them dry and warm."

Eaton Hall, near Chester, one of the most notable mansions in the country, has been handed over by the Duke of Westminster to the authorities for use as a hospital for wounded soldiers.

Several wounded officers and men have already been sent from the military hospitals to Bath for treatment by the mineral waters, and one at least has sufficiently recovered to return to the front. The offer of the Bath Corporation to give officers and men invalided home from the front free treatment at the hot mineral baths was accepted by the War Office and communicated by the Army Medical Service to the various military hospitals. Bath has also taken 50 wounded soldiers and a number of refugees.

The War Office has accepted the offer of Ulster Volunteer Force Medical Board of a hospital with 100 beds for wounded soldiers.

McGill University, Montreal, has contributed a battalion to the war contingent raised in the Province of Quebec. It is reported that a number of professors are serving as privates, including Dr. J. G. Adami, the well-known authority on tuberculosis.

A military hospital in connection with the Cambridge Hospital at Aldershot has been established at Tylney Hall, Hampshire. One wing of the house has been arranged for 45 patients and the staff of voluntary workers, and has now its full complement of cases, which consist of sick and wounded from the front, both British and Belgian.

NOTICES TO CORRESPONDENTS, &c.

☞ Correspondents requiring a reply in this column are particularly requested to make use of a *Distinctive Signature or Initial*, and to avoid the practice of signing themselves "Reader," "Subscriber," "Old Subscriber," etc. Much confusion will be spared by attention to this rule.

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Subscriptions may commence at any date, but the two volumes each year begin on January 1st and July 1st respectively. Terms per annum, 21s; post free at home or abroad.

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Reprints.—Reprints of articles appearing in this Journal can be had at a reduced rate, providing authors give notice to the publisher or printer before the type has been distributed. This should be done when returning proofs.

Contributors are kindly requested to send their communications, if resident in England or the Colonies, to the Editor at the London office, 8, Henrietta Street, Strand; if resident in Ireland to the Dublin office, in order to save time in reforwarding from office to office. When sending subscriptions the same rule applies as to office; these should be addressed to the Publisher.

Original Articles or Letters intended for publication should be written on one side of the paper only and must be authenticated with the name and address of the writer, not necessarily for publication, but as evidence of identity.

WORKMEN'S COMPENSATION ACT, 1914.

The Home Secretary asks us to announce that in consequence of the death of Dr. J. D. L. Macalister, one of the Medical Referees under the Workmen's Compensation Act, 1906, for the Sheriffdom of Forfar, the appointment held by him is now vacant. Dr. Macalister was attached more particularly to the Forfar District. Applications for the post should be addressed to the Private Secretary, Scottish Office, and should reach him not later than the 25th November, 1914.

Examiner.—"Buchanan's Anatomy" is the only anatomical text-book with which we are acquainted, in which the old nomenclature is retained, and its recent re-issue tends to show that the Basle terminology has failed, so far, to commend itself in this country.

Mr. J. M. Carvell.—Your letter came to hand as we were "at press," too late for present issue.

THE BACTERIOLOGIC BALL.

A gay Bacillus, to gain him glory,
Once gave a ball in a laboratory.
The fete took place on a cover-glass,
Where vulgar germs could not harass.
None but the cultured were invited
(For microbe cliques are well united),
And tightly closed were the ballroom doors
To all the germs containing spores.
The Staphylococci first arrived—
To stand in groups they all contrived;
The Streptococci took great pains
To seat themselves in graceful chains.
While somewhat late, and two by two,
The Diplococci came in view.
The Pneumococci, stern and haughty
Declared the Gonococci naughty,
And would not care to stay at all
If they were present at the ball.
The ball began, and mirth ran high.
Each germ enjoyed himself that night
With never a fear of the Phagocyte.
'Twas getting late, and some were "loaded"
When a jar of formaldehyd exploded,
And drenched the happy dancing mass
That swarmed the fatal cover-glass.
Not one survived, but perished all
At this bacteriologic ball.

From the *Journal of the Tennessee State Med. Assn.*

A TIMELY HOSPITAL APPEAL.

A neat little four-paged card has been issued by Mr. A. Fotheringbam Lysons, Appeal Secretary of Charing Cross Hospital, which, by catching the patriotic spirit of the hour, should make a ready appeal to the generosity of those who are anxious to help their country in a practical manner and yet who are unable to offer their personal services. The hospital requires a sum of £3,000 for the equipment of the five newly-renovated wards now opened for the accommodation of our brave wounded.

Meetings of the Societies, Lectures, &c.

Thursday, November 12th.

Royal Society (Burlington House, W.).—Hon R. J. Strutt, Prof. J. N. Collie, Mr. H. S. Patterson, Mr. I. Masson, Prof. C. H. Lees, Mr. F. O. Rice, Prof. W. M. Thornton, and Mr. E. G. Bilham.

Monday, November 16th.

Medical Society of London.—8.30 p.m.: Sir Watson Cheyne, Bt., P.R.C.S., will open a discussion on "Surgical Experiences of the Present War." Mr. A. Edmunds, Sir F. Eve, Mr. R. R. Rowlands, Mr. D'Arcy Power, Mr. Charters Symonds, Dr. Embleton, Dr. Ironside Bruce, and others, will take part.

Tuesday, November 17th.

Royal Society of Medicine.—5 p.m.: General Meeting of Fellows: Ballot for the Election of Candidates to the Fellowship.

Vacancies.

Hulme Dispensary, Dale Street, Stretford Road, Manchester.—Wanted, a House Surgeon, duly registered and fully qualified. Salary £180 per annum. Annual increase £10 to £200, with apartments, attendance, coal and gas. Applications, with testimonials, at once to Honorary Medical Secretary.

Ingham Infirmary and South Shields and Westoe Dispensary.—Junior House Surgeon. Salary £115 per annum, with residence, board, and washing. Applications to John Potter, Secretary, Ingham Infirmary, South Shields.

Royal Infirmary, Preston.—Assistant Resident Medical and Surgical Officer. Salary £120 per annum, with board, residence, and laundry. Applications to Walter Davies, Secretary, 5 Winckley Street, Preston.

Kent County Asylum, Chartham, near Canterbury.—Junior Assistant Medical Officer. Salary £250 per annum, with furnished quarters, attendance, coal, gas, milk, garden produce, washing, and board. Applications to Medical Superintendent.

County Borough of Belfast.—Sanatorium Resident Medical Superintendent. Salary £500 per annum, with board and residence. Applications to R. Meyer, Town Clerk. (See advert.).

Rathdown Union.—Medical Officer. Salary £125 per annum, rising by triennial increments to £165, with the usual vaccination and registration fees, and an additional £20 per annum as M.O.H. Immediate application to Patrick Cunniam, Clerk of the Union. (See advert.).

Appointments.

Barnes, H. W., M.B.Cantab., L.R.C.P.Lond., M.R.C.S., D.P.H., Acting Medical Officer of Health and School Medical Officer for Luton.

Blakeway, H., F.R.C.S.Eng., M.S.Lond., Acting Assistant Surgeon to the Royal Free Hospital.

Moon, G. B., L.R.C.P. & S.Edin., L.F.P.S.Glasg., Second Assistant Medical Officer at the Surrey County Asylum, Netherne.

Paterson, Miss M. R., M.R.C.S., L.R.C.P., Resident House Physician at the Royal Free Hospital.

Powell, Miss E. M., M.R.C.S., L.R.C.P., Resident House Surgeon at the Royal Free Hospital.

Smith, W. Maule, M.D.Edin., M.R.C.P.Edin., Medical Superintendent to the West Bromwich and Walsall Joint Unions.

Vinter, C. H. S., M.R.C.S., L.R.C.P.Lond., Certifying Surgeon under the Factory and Workshop Acts for the Framlingham District of the County of Suffolk.

West, T. Ruddock, M.B., B.S.R.U.I., Assistant School Medical Officer and Assistant Medical Officer of Health of Norwich.

Births.

Cooper Ross.—On November 4th, at 8 Newington Road, Edinburgh, to Dr. and Mrs. A. Aitken Cooper Ross—a son.

Gunn.—On October 31st, at 60 Tower Gardens Road, Tottenham, N., the wife of Andrew Rugg Gunn, M.B., Ch.B. (Edin.), of a daughter.

Mackinnon.—On October 26th, at Nairobi, British East Africa, the wife of Murdoch Mackinnon, M.D., D.P.H., of a daughter.

Sparrow.—On November 4th, at 26 Essex Road, Watford, the wife of E. C. Sparrow, M.A., M.B., B.C., of a daughter.

Speirs.—On November 5th, at The Cedars, Diss, Norfolk, to Dr. and Mrs. Spiers—a daughter.

Marriages.

Acland—Corner.—On November 4th, at Long Sutton, Somerset, quietly, John H. D. Acland, Lieut. R.A.M.C., and Elizabeth Margaret, daughter of Charles Corner, Esq., late Chief Engineer of Rhodesia Railways.

Deaths.

Atkins.—On November 1st, at Chatsworth, Grove Park Road, Weston-super-Mare, Henry Atkins, Brigade Surgeon in the Bombay Medical Service, Retired, aged 84.

Bell.—On November 7th, Charles William Josceline, M.D., of Ticehurst, Sussex, formerly of Louth, Lincolnshire, aged 54, third son of the late John David Bell, standing counsel to the Government in India.

Butler.—On November 6th, at the Allens, Bishops Lydeard, suddenly, of heart failure, Somerset Edward Molyneux Butler, L.R.C.P.I., L.R.C.S.I., aged 47.

Davson.—On November 6th, at St. George's Hospital, Frederick Adams Davson, M.D., J.P., late of Mount Galpine, Dartmouth, aged 74.

Fernie.—On November 1st, at his residence, No. 4 Pembroke Villas, The Green, Richmond, Surrey, William Thomas Fernie, M.D., formerly of Great Malvern, the dearly-loved husband of Jane Adele Fernie, aged 84.

Gavin.—On November 7th, at 44 Warrington Crescent, W., Evelyn, beloved wife of Dr. Alex Gavio, of 53, Welbeck Street, Cavendish Square, W.

Haywood.—On October 30th, at 61 Shrewsbury Road, Birkenhead, John Williams Haywood, M.D.St.And., M.R.C.S., L.S.A., aged 86.

Ilott.—On October 31st, at Swansea, Arthur Tolman Ilott, M.R.C.S., L.R.C.P., L.S.A., aged 45.

Ker.—On November 3rd, at "Tintern," Balham Hill, Hugh Richard Ker, F.R.C.S.Edin., aged 68, fourth son of the late Rev. William Tighe Ker, Vicar of Tipton, Staffs.

Lavis.—On September 10th, near Bourges, France, killed in a motor accident Henry Johnstone Lavis, M.D., M.R.C.S., B.es.-Sc., F.G.S., etc., of Vittel and Beaulieu-sur-Mer, aged 58.

Lockwood.—On November 8th, at 19 Upper Berkeley Street, Portman Square, W., Charles Barrett Lockwood, F.R.C.S., aged 58, third son of the late George Lockwood, of Stockton-on-Tees.

Muir.—On October 29th, at Broadstairs, Robert Douglas Muir, M.D.Brux., M.R.C.S., L.R.C.P., at The Limes, St. James's, Hatcham, aged 45.

Sydney.—On October 28th, at Strathclyde House Staines Road, Hounslow, Henry Sydney, M.D., C.M.Edin.

O'Connor.—On October 25th, in France, Captain Richard Dominick O'Connor, R.A.M.C., youngest son of the late F. W. O'Connor, F.R.C.S.I., of Limerick. Indian and American papers, please copy.

Reade.—On November 5th, at 25 Coleherne Road, Earl's Court, J. B.C. Reade, Surgeon-Major-General, K.C.B., K.H.S., aged 82.

Tasker-Evans.—On November 1st, suddenly, John Tasker Tasker-Evans, M.D., Upton House, Hertford, formerly Mayor of Hertford, aged 71.

Wenham.—On November 4th, at Peking, of pneumonia, Herbert Victor Wenham, F.R.C.S., second son of Arthur and Frances Wenham, of Leamington, aged 37.

Wotherspoon.—On November 4th, 1914, at 14 The Promenade, Musselburgh, Charles Grey Wotherspoon, M.A.Oxon., M.B., C.M.Edin., aged 45 years, younger son of Charles Grey Wotherspoon, of Hillside, Aberdour, Fife, Barrister-at-law.

THE MEDICAL PRESS AND CIRCULAR.

"SALUS POPULI SUPREMA LEX"

VOL. CXLIX. WEDNESDAY, NOVEMBER 18, 1914. No. 21.

NOTES AND COMMENTS.

The Belgium Medical Relief Committee.

It is difficult for medical men in the United Kingdom to realise, even dimly, the dire disasters that have overtaken our *confrères* in Belgium. Imagine London a mass of ruins, its population fled, its streets in the possession of a brutal and relentless soldiery. Imagine the towns and villages of the neighbouring countries similarly desolate, with the countryside around a howling waste of burnt homesteads and harried crops. Amid such an environment the medical practitioner would find himself without home, without patients, without money and haply without food or the bare necessities of life for himself and his family. It is to be feared that the picture thus conjured up represents with tolerable accuracy the plight of the Belgian medical man who has not been lucky enough to escape to England or to some other friendly country. Some of them are at this very moment utterly destitute and dependent upon British hospitality for support. There is urgent need then of relief not only of present wants but of future needs, and it is abundantly clear that a large sum will be wanted for the purpose. The original appeal of Professor Jacobs, of Brussels, published in the MEDICAL PRESS AND CIRCULAR of November 4th, has not appeared so far in the other leading British medical journals, but a Relief Committee was formed a few days after the appearance of the letter in question. From certain brief statements since issued it seems that the Committee recognised the extreme difficulty of raising funds for any particular purpose at the present juncture. In a matter of such extreme urgency a generalisation of that kind hardly suggests the strong determination and zeal required to carry their purpose to a successful issue.

The Constitution of the Relief Committee.

It is interesting, therefore, to learn the composition of the Committee, so far as may be gathered from a short notice in the *British Medical Journal* of November 14th instant, of the first meeting. The chair was taken by Sir Rickman Godlee, and those present were:—Sir Thomas Barlow, Sir Watson Cheyne, Dr. Meredith Townsend, Dr. Frederick Taylor, Mr. E. T. Nethercoat (president of the Royal Pharmaceutical Society), Dr. des Vœux (treasurer), Dr. Squire Sprigge (secretary). To this list we presume the name of Dr. Dawson Williams should be added as convening the meeting. The composition of the Committee is strong, so far as it goes, but it can hardly in any sense be regarded as representative of the medical profession of the United Kingdom. The two London colleges and two London medical journals, for example, are not qualified to speak for the main body of Irish and Scottish practitioners, nor for the University graduates scattered throughout the kingdom. In a self-appointed body of this kind one would have expected the University of London to have been represented. However, the Committee has power to add to its numbers, so that any little weakness in its composition can be remedied later. Meanwhile, the MEDICAL PRESS AND CIRCULAR has expressed its cordial sympathy with the objects of the Committee, and has appealed to its Irish supporters for help in their laudable endeavours. It remains to be seen whether the medical profession in this country, whose resources and income have been already taxed in others ways during the present war, will find themselves able to respond to that appeal.

An Alternative Government Loan.

SHOULD the requisite funds not be forthcoming it certainly will not be due to any lack of energy on the part of the Committee. The letter of appeal from Dr. Macnaughton-Jones with the statement of Professor Jacobs reached us a day or two before it was published in our issue of November 4th. A similar document had been sent at the same time to the *British Medical Journal* and the *Lancet*, and so rapid was the subsequent action that the Committee, we are told, was appointed on November 4th. Indeed, the invitation to Dr. Macnaughton-Jones did not reach him in time for acceptance, and neither he nor Professor Jacobs was present. It has since been announced on the authority of *The Lancet* that the work has been taken in hand strenuously. The effort to help our Belgian fellow medical men in the evil days that have fallen upon them should commend itself to every medical man of the United Kingdom. Failing private philanthropy the duty, in our opinion, should fall upon Parliament. As pointed out in our last issue the financial burdens of Belgium must in the long run be borne by our countrymen, who will regard that help as a small part of the obligation due to our gallant ally. As a part of this necessary expenditure it would be difficult to imagine a wiser or a more productive outlay than that which would preserve and restore the medical service of Belgium, apart from the pure philanthropy of such an act. With these facts in view, we therefore urge upon Mr. Asquith's Government the supreme urgency of a grant to the Belgian medical men and pharmacists. Such a grant would not fall within the category of ordinary expenditure, for it would be regarded by the recipients as a debt of honour. Possibly the Chancellor of the Exchequer may find time amid his multifarious duties to issue a loan at moderate interest repaid after a given lapse of time by the medical men concerned. By this means not only would a gracious act of international generosity be achieved, but the Belgian population would be saved from the dire disaster of being deprived of their national medical service for some time to come.

The Position of the "M.P. and C." again Defined. We are glad to say that in answer to our appeal several subscriptions have reached both our London and our Dublin offices. We hope next week to acknowledge these and others in a goodly list. The matter has been taken up warmly in Ireland, and a circular letter to the medical profession, calling a meeting at 5 p.m. on November 27th at the Royal College of Physicians, Dublin, has been issued by the Presidents of the Irish Royal Colleges of Physicians and of Surgeons respectively. It may be as well to take this opportunity to repeat, in order that there may be no possible misunderstanding, that the position of the Medical Press and Circular in this matter is merely that of a sympathetic helper of (to give its full title) the "Committee to Assist the Belgian Medical Practitioners and Pharmacists." The only reservation we make is that in the event of the original committee failing to amass sufficient funds, it shall be open to our subscribers to nominate an independent administrative body. There is little need for any such saving clause, however, when one sees the list of six Presidents, one Belgian Professor and the name of Dr. Squire Sprigge in the list published in the *British Medical Journal* of November 14th. We have already hinted that in our opinion the composition of the Committee should be based upon a wider and more comprehensive basis. That opinion, however, has not for a moment prevented us offering voluntarily our hearty co-operation in so praiseworthy an object. As it turns out, the fact of our journal not being invited to serve on the Committee is explained by the simple fact, which we have on unimpeachable authority, that both Dr. Dawson Williams and Dr. Squire Sprigge were elected on the Committee not in their editorial capacity, but alternatively as members of the medical profession.

Good Red Herrings and the War. On the whole there has been a fairly favourable verdict on the feeding of our troops in France and Belgium. The French, so we have been repeatedly informed by newspaper correspondents, have expressed both surprise and admiration at the perfection of our food commissariat. There seems little doubt, indeed, that we may flatter ourselves on having beaten records in the quality and quantity of the food provided by our War Office to Mr. Thomas Atkins in the trenches as well as over the wider area commonly spoken of as "the seat of war." At the same time there is room for improvement in the variety of the provisions contracted for by an unimaginative War Office. What about the good red herring—a fish that is toothsome, can be cooked in a trice, is nourishing as butcher's meat, keeps sweet for months together, and is altogether about the most economical and attractive of British foodstuffs? Why should not our troops be supplied with many tons of cured herrings, which would make a most welcome change to the lenten fare, of which "bully" beef forms an outstanding item. Now is the time for action, for the Government, by buying up the large stocks of fish now thrown upon the hands of the curers would probably save one of our most useful industries, and at the same time rescue a large body of workers from otherwise inevitable distress. Last week it was announced that several of the neutral countries that have hitherto been large consumers of British herrings would be cut off by certain war restrictions imposed upon maritime trade. If the price of herrings were reduced it is not unlikely that the whole supply might be taken readily by our own popluation, apart from any possible demand on the part of the Army authorities.

The Medical Roll of Honour. Once again the casualties among the Royal Army Medical Corps and among other medical members of the Services have been considerable. Officers reported killed:—Capt. E. M. Glanvill, R.A.M.C., and Capt. A. MacNab, M.B. (London Scottish); Capt. C. P. O'Brien-Butler, R.A.M.C., and Capt. T. McC. Phillips, R.A.M.C., have died of wounds. The death is also announced of Surgeon F. J. Bernard, 2nd class Assistant-Surgeon, Indian Subordinate Medical Department. The following medical officers were serving on board H.M. ships *Good Hope* and *Monmouth*, the loss of which the Secretary of the Admiralty announces must be presumed:—Fleet-Surgeon James J. Walsh, Surgeons Francis C. Searle and F. L. J. M. de Verteuil (*Good Hope*); Staff-Surgeon Henry Woods and Surgeon Albert J. Tonkinson (*Monmouth*). Officers wounded:—Capt. H. S. Dickson, R.A.M.C.; Major F. S. Irvine, R.A.M.C.; Capt. A. E. Grisewood, I.M.S., and Lieut. J. A. O'Driscoll, R.A.M.C., and Lieut. L. R. Shore, R.A.M.C. Capt. A. C. Osburn, R.A.M.C., 4th Dragoon Guards, has been admitted to the Royal Victoria Hospital, Netley, from Belgium. Officers wounded and missing:—Capt. A. A. Meaden, R.A.M.C., and Capt. A. M. Rose, R.A.M.C. Officers missing:—Lieut. J. G. Butt, M.B., R.A.M.C., Lieut. N. M. Mehta, I.M.S., Capt. A. M. Pollard, R.A.M.C., and Lieut. H. G. Winter, R.A.M.C. Capt. W. P. Croker, R.A.M.C., is unofficially reported prisoner of war. Officers previously officially reported missing, now unofficially reported prisoners of war:—Capt. R. V. Dolbey, R.A.M.C., and Lieut. R. A. Flood, R.A.M.C.

LEADING ARTICLES.

VENEREAL DISEASE AND ITS DANGERS.

It would be difficult to imagine a more striking illustration of the marvellous strides of modern medical science than that which in the early years of the present century have marked the diagnosis and treatment of syphilis. That which has for time out of mind formed one of the most dreaded of all human maladies has at the present day been to a great extent robbed of its terrors. At the same time, medical men have re-written the clinical history of syphilis in its remoter manifestation. It is appropriate that these advances should be associated with a wider appreciation on the part of the public of the precise conditions attending the incidence, the course, the prevention, and the cure of venereal diseases. An important step in that direction has been taken by the appointment of a Royal Commission upon the subject. The task of educating the public at all adequately in such matters, however, is not a little difficult and delicate. It is accompanied in the mind of the laity with various deeply-rooted prejudices and beliefs. For instance, the old-fashioned objection that it was morally wrong to cure, or attempt to cure, a man of venereal disease contracted by his own sexual lapses still lingers in some quarters. A variation of this penalising stupidity is to be found in some of the medical benefit societies, which do not give sick pay allowance or medical attendance to members suffering from venereal disease. The absurdity is self-evident of thus neglecting diseases that not only play havoc with the health of their victims, but are also highly communicable, and are actually communicated to a large number of innocent persons. It appears from a case lately brought under our notice that sick pay is refused, in some instances, at any rate, to insured persons under the National Insurance Act suffering from venereal diseases. In the instance referred to a cook suffering from tertiary syphilis was refused sick pay for several weeks, although she was out of a situation and actually short of food. The result of this shortsighted policy was that the chances of cure were greatly handicapped, in spite of the fact that a voluntary hospital was supplying the costly drug, neosalvarsan, in order to cure one of Mr. Lloyd George's insurance patients. The tragedy was heightened by the knowledge that the disease had in all probability been contracted in an innocent way, but, whatever its origin, we contend that it is the plain duty of the State in its crusade against disease to make no exception as regards venereal diseases. That attitude will doubtless be adopted by the newly-constituted National Council for Combating Venereal Disease, which was duly inaugurated last week at the Royal Society of Medicine. It is to be hoped that steps will be taken to make this body really representative of all engaged in medical practice, for it is idle at the present day to attempt to entrust matters of such national importance to the guidance of a small clique claiming a position of privilege. A good example of the broader spirit has been given by Liverpool, which has taken the subject in hand with characteristic vigour. A powerful representative committee of medical and lay members has been formed for the express object of conducting an educational campaign. Dr. W. R. Mackenna, the honorary treasurer, has asked us to draw attention to this important departure. It is significant that the two foundation meetings were presided over by the Lord Mayor and the Lady Mayoress respectively. It was determined to carry out an educational campaign by means of systematic lectures. The widespread interest excited by the movement was shown by the fact that the inaugural meeting was attended by a large number of employers of labour, business men, social workers, representatives of educational bodies, together with members of the clerical, legal and medical professions. An excellent inaugural address was given by Dr. Charles J. Macalister, chairman of the Special Committee, which we hope to have an opportunity of presenting to our readers at an early date. Amongst various points of importance he raised that of notification, which he advocated in some form that avoided identification. Liverpool has long held a foremost place in public health administration, thanks greatly to the energy and progressiveness of its Medical Officer of Health, Dr. E. W. Hope. In some points London still lags behind the provinces, not because of the inferiority of its medical officers of health, but apparently from the lack of common standards and of a common municipal purpose.

CURRENT TOPICS.

Hyoscine in the Treatment of Mental Disorders.

The public prominence recently given to scopolamine hydrobromide, or hyoscine, as a remedy for certain morbid mental states, to which reference was made in these columns a short time ago, will be acknowledged to be out of all proportion to its value as a drug. It is true that, in the hands of a skilled physician, hyoscine may prove most useful in the treatment of acute maniacal disorders, but the dangers attendant upon its haphazard administration are not inconsiderable. The subject was brought up at the annual meeting of the Medico-Psychological Association, held at Norwich last July, by Dr. A. W. Daniel, of the London County Asylum, Hanwell, whose valuable paper is reported in the *Journal of Mental Science*. When hyoscine is given in repeated doses, especially by the hypodermic method, symptoms of hyoscinism, or intolerance to the drug are prone to appear. An intense, restless excitement, accompanied by vivid hallucinations, followed by rapid emaciation, and well-marked paresis of certain muscles are characteristic signs of chronic poisoning, and they rapidly disappear upon the withdrawal of the drug. It may be noted that a single dose of scopolamine hydrobromide hypodermically is only contraindicated when the physical condition of the patient is markedly poor. Dr. Daniel finds that weak-minded epileptics appear to have a peculiar idiosyncrasy for the drug. The best test for any ill-effects accruing from the administration of hyoscine is the weighing machine. Provided the doses are not repeated indefinitely there will still be a field of usefulness for this potent drug in cases of acute excitement in powerfully built subjects.

From the West.

A simple and touching obituary paragraph appears in the *Boston Medical and Surgical Journal* for October 29th. There are only a few lines, but their unstudied pathos makes us pause. We read "Report from New Orleans states that on October 16th a mouse died in that city from bubonic plague. This is said to be the first instance in the United States where a mouse has been found infected with this disease." And not a word more. It is hard on us. There are so many things we should like to know. At the first blush the beneficent care of the Government at Washington seems beyond belief. We think of a State clinique for the minor *mures* with satellite surgeons and parasitic physicians lovingly guarding the sleekit cow'rin' tim'rous beasties lest a hair of their thready tails fall to the ground unnoticed. We think of a Rodent Registrar who records their births, their deaths, and keeps some track of their fugitive amours. We think of a Publicity Department for the Animals and of an enlightened Press—a Press more humane, more far-seeing than ours, that thinks the trials and triumphs of our lesser brothers in creation not altogether unworthy of its space. We think—and then we stop. We wake up and pull ourselves together and see what manner of thing this really is. The philozoic motive disappears. The paragraph is not really about its subject. The mouse whose schemes have gone agley is once more subordinate to the man. He is only an incident in a sanitary campaign. We have had this fight against bubonic plague in England. It was responsible for much rodent mortality, for the fastening of tin-plates on the hawsers of our ships and for the invention of the blessed word "deratization." The appearance of most things depends on the point of view. Looking with the pragmatic eye of the pathologist we would have seen in the paragraph nothing but a fact more or less interesting according to our lack of acquaintance with its subject. But to the plain man—the running reader of the misquotations—it would suggest the hatch, match and dispatch column—if there be one—of the *Zoophilist*. And the moral of that is that we must be careful how we express ourselves.

The Legal Position of the Medical Assessor.

The question as to the legality of a single medical man acting both as Medical Referee and as Medical Assessor under the Workmen's Compensation Act was raised last week at Stratford. Counsel for the applicant, before the case opened, asked Judge Smyly, K.C., to adjourn it in order that a new Medical Assessor might be appointed instead of Dr. Kenneth Goadby, the one sitting, as that gentleman had already acted as Medical Referee, and granted a certificate. He had already prejudged the case, and ought not to sit that day. To the layman innocent of the subtleties of British law there is something convincing in the mere statement of this contention. How can a man who has already certified, as in this case, that the applicant had recovered from lead-poisoning, be expected later to sit in judgment against himself? It reminds one irresistibly of the Lord Chief Justice of Gilbert's comic opera "Mikado," who associated in his own person a large number of other posts—such as those of Lord High Treasurer, Chancellor of the Exchequer, Public Prosecutor, Attorney-General, and so on. His Honour declined to adjourn the case, whereupon Mr. Ward reiterated his view that it was a matter of great public importance if the gentleman sitting to advise the Court had already expressed a definite personal opinion upon the matter. His Honour replied that Dr. Goadby had been appointed because of his great knowledge to assist the Court in these matters. In one recent case Dr. Goadby did not sit as Medical Assessor because he (the judge) pointed out that he had already examined the applicant on behalf of his employers. That was a different case, however, from the one under consideration. Under these circumstances, applicant, acting on the advice of counsel, declined to appear before the tribunal (Bow County Court), and his Honour said he supposed the case would go to the Court of Appeal, and if necessary he would give leave for it. The issue thus raised appears to involve a principle of considerable importance, extending far beyond the confines of the Workmen's Compensation Act.

Fatalities from Amylene Hydrate.

Among the hypnotics whose action is generally held to be reasonably safe and certain, dimethyl-ethyl-carbinol, commonly known as amylene hydrate, has been rightly regarded as a favourite. Occupying a position midway between chloral and paraldehyde, amylene hydrate, in doses of thirty to eighty minims—according to the *Pharmacopœia Helvetica*, 4th edition, 1907—is frequently administered for its sedative effects, especially in hospital and asylum practice. Unfortunately an overdose of this drug was responsible for five deaths out of eleven persons to whom it had been given in the Bethlem Royal Hospital. In the medical evidence at the inquest held last week by the Southwark Coroner it was stated that one of the medical officers made up a draught of amylene hydrate out of a certain bottle which was supposed to contain the diluted instead of the concentrated drug. The actual strength of the liquid was not stated in the newspaper report, but all the eleven patients were taken ill and, in spite of treatment, a fatal result accrued in five cases. A verdict of death from misadventure was returned by the jury, who recommended that in future such drugs should be kept in receptacles easily distinguishable by touch and label. With this recommendation all will agree, for such lamentable accidents could be entirely prevented by adopting distinctive poison-bottles for dangerous drugs. Another point stands out prominently in the case—namely, the impossibility of regarding any hypnotic as absolutely safe, though, so far as we know, no deaths from amylene hydrate have previously been reported.

Change the Name.

As is usual in a crisis we have suddenly awoke to the importance of names. A few months ago we, with the poet, invited all and sundry to call us "any old name, it's all the same," but now in spite of Bacon's dictum about the constancy of the odoriferous qualities of a mal-designated rose we see that names matter. Some people have been forbidden to change their names; unpopular Mr. Schneider can never—at any rate till the war is over—be known as Gordon or Tollemache or in any other way which his taste for euphony or self-preservation might suggest. Drugs too are in rather a state of chaos. What has happened is usually that some firm of repute has introduced a new remedy with patent name and potent advertising. Other firms copy the product and try to supplant the original with their own preparation which has its own patent name. Just now a great deal of table turning is going on and we are swamped with substitutes for many of our old familiar friends because some are, perhaps, made in Germany, and others might be. Of course, the question of trading with aliens crops up, but not as often as we are led to suppose. In many cases the original producer is hardly dealt with. He has gone to the trouble and expense of introducing a good product and advertising it, and when we order what we want under its proprietary name we are sure of getting it. Just now some firms seem rather keen on reaping the benefit of other people's publicity by labelling their products "the same as——" or "chemically identical with so and so." We should not let this substitution idea run away with us. Products which are advertised and have stood for years on their own merits deserve success, first, perhaps, in common with their competitors, for selling a good article and, secondly, for their enterprise in introducing it to the public.

Billeting and Sanitation.

That the sudden incoming of a large body of troops must frequently strain the hygienic resources of a district is well known to many medical officers of health. The members of the sanitary service of this country have already been circularised by the authorities with regard to the necessity of co-operation with the military staff in matters affecting the health of troops. The Local Government Board for Scotland has recently forwarded for the information of the Local Authority the directions issued by the Army Council to Home Commands respecting the assistance which the former can give in connection with the sanitary condition of military quarters. It is obvious that the civil and military authorities should work in the closest possible co-operation in preventing the spread of infectious disease. The duties and responsibilities of the Medical Officer of Health of a district in which troops are billeted must be considerably increased at the present time. Not only is he expected to inspect billets and camps systematically, but he is also required to bring to the notice of Local Authorities any conditions in which they can render useful service to the military population, such as by the extension of water mains, the opening or extending of sewers, the provision of latrines, baths, the disinfection of clothing, the destruction of refuse, and so on. In connection with the extra work that must inevitably be imposed upon the Medical Officer of Health under these conditions, it is to be hoped that the question of remuneration for these special services will not be overlooked by the War Office.

The National Council for Combating Venereal Diseases.

It was a happy thought which inspired the promoters of the National Council for Combating Venereal Diseases to hold the inaugural meeting at the present time. Accordingly, a large and sympathetic audience assembled last Wednesday at the house of the Royal Society of Medicine under the presidency of Sir Thomas Barlow, K.C.V.O., to hear the aims and objects of the movement explained. The right note was touched when it was pointed out that Lord Kitchener himself approved of the work which the National Council proposes to do, and we understand he has given his sanction for the education of the army in sexual matters by qualified experts. The chief object of the Council is to teach the public by providing "accurate and enlightening information" as to the prevalence of venereal disease and as to the necessity for early treatment. Greater facilities for the treatment of such affections are badly needed, and there can be no doubt that a wider knowledge of the physiological laws of life would tend towards a better standard of health and conduct. The Council proposes to co-operate with existing bodies, to seek their approval and support and also to give advice when desired. A Provisional Executive Committee of the Council has been constituted as follows:—Sir Clifford Allbutt, Sir Thomas Barlow, Sir Francis Champneys, Sir Watson Cheyne, Mr. W. A. Coote, Major Leonard Darwin, Colonel T. W. Gibbard, Sir Rickman Godlee, Mrs. James Gow, the Right Hon. Lord George Hamilton, Lady Laura Ridding, the Lord Bishop of Southwark, Mr. Charters Symonds, Dr. Frederick Taylor, Mrs. Torrey, and Dr. Helen Wilson. The honorary secretaries of the National Council are Dr. Douglas White and Mrs. Gotto. The new movement may be welcomed by all who have the highest interests of the nation at heart.

The Death of Lord Roberts.

The sudden death of Field-Marshal Lord Roberts at the front adds another striking dramatic feature to the great war. The famous soldier spent some forty of the earlier years of his life in India, a fact that disposes of any belief that the climate of that country can be essentially unhealthy. At any rate in his 82nd year our great veteran, with characteristic energy, journeyed to France and went to the battle line in order to visit and inspect the Indian troops whom he knew so well. Following a tour of inspection on Friday last a chill set in and he succumbed on Saturday within a few hours to an attack of inflammation of the lungs. The cold weather that set in during the week doubtless acted as a predisposing cause, and was materially aided by the fatigue of prolonged journeying and exertion. The loss is irreparable of so distinguished a soldier, one who united bravery in the highest form with unassuming kindness and humanity. In some ways it seems a fitting end that he should die at the post of duty. To the world he was a great and heroic warrior: to the soldier, "Lord Bobs."

PERSONAL.

H.R.H. Princess Christian, with the Marchioness of Linlithgow and Sir Arthur May, Director-General of Naval Hospitals, last week visited the new hospital for sailors at Queensferry, the gift of an anonymous donor, which has been named Queen Mary and Princess Christian's Hospital.

At the opening of the new Naval and Military Hospital in Scotland by H.R.H. Princess Christian last week, Sir Wm. McEwen, Consulting Surgeon to the Admiralty, Staff-Surgeon Bateman, Fleet-Surgeon Paget Jones, and Probationer-Surgeons Hirley, Elliott, Harrison and Billings, had the honour of presentation to Her Royal Highness.

Fleet-Surgeon Arthur Gaskell, R.N., has been appointed Assistant Director of Medical Services.

Dr. J. J. Ferguson has been appointed Medical Superintendent of the Fife and Kinross Asylum.

The McQuilty Memorial Prize at the Royal Victoria Hospital, Belfast, has been awarded this year to Dr. A. Fullerton, M.B.

The Crichton Research Scholarship in Anatomy in the University of Edinbugh has been awarded to Dr. Stuart Bolton, M.B., Ch.B.

The Darwin medal of the Royal Society has been awarded this year to Professor Edward B. Poulton, M.D., F.R.S., for his researches in heredity.

Dr. Harold Bailey Shaw, M.B., for 18 years Medical Superintendent of the Isle of Wight County Asylum, Whitecroft, Newport, I.W., left estate valued at £4,401.

A handsome and useful verandah has been added to the Eltham and Mottingham Cottage Hospital as a memorial to the late Dr. James Jeken, who devoted over thirty years of his life in serving the institution.

Dr. T. T. Thomson, of the London Mission Hospital, Jammalamadugu (South India), left last week for Belgium, where he will be serving under the British Red Cross in the First Anglo-Belgian Ambulance Corps.

Sir Robert J. Price, M.P. (East Norfolk), who is also an M.R.C.S.Eng., was the Mover of the Address in the House of Commons in reply to the speech from the Throne upon the occasion of the opening of Parliament last week.

The Alvarenga Prize of the College of Physicians of Philadelphia for 1914 has been awarded to Dr. H. B. Sheffield, of New York City, for his essay upon "The Fundamental Principles involved in the Use of the Bone Graft in Surgery."

CLINICAL LECTURE

ON

SUBJECTIVE AND ECTOPIC ABDOMINAL PAINS.

By P. MOURIQUAND,

Professor at the Faculty of Medicine of Lyons, Physician to the Hospitals.

[Specially Reported for this Journal.]

We should be running great risk of making mistakes if we referred pain to one particular part of the abdomen, trusting too implicitly to the patient's sensations as described by himself, for the simple reason that even when he correctly describes what he feels the distribution may be quite misleading. The clinical history of certain cases of pneumonia which present symptoms suggestive of appendicitis is evidence of this.

We often meet with cases of gallstone colic in which the patients refer the pain to the epigastrium and in chronic cholecystitis the symptoms simulate appendicular trouble. In sub-hepatic peritonitis the pain is not unfrequently felt far from the site of the mischief, but in this instance the pain is due to secondary inflammation of the local peritoneum, so that these cases do not come into the category under consideration.

Let me take some illustrative cases. I remember that of a girl, æt. 20, who was under observation for a whole year and successively developed symptoms of subacute pulmonary tuberculosis, then abdominal pain accompanied by diarrhœa due to ileo-cæcal ulceration. On the supervention of the intestinal symptoms the pain was very severe and always in the same area—*viz.*, the umbilical region. It came on in paroxysms and prevented her getting any sleep. It was never anything but umbilical or peri-umbilical and was not felt in any other part of the abdomen, yet comparatively strong pressure on that region failed to elicit any tenderness corresponding to the pain she complained of. It was only by methodical exploration of the abdomen that we ultimately discovered a limited painful spot in the right iliac fossa, more than four fingers' breadth from the place where she felt the pain. This was merely a commonplace pain such as is often experienced in the right iliac fossa by tuberculous subjects with intestinal ulceration. For that matter there was nothing in the region to suggest the existence of peritonitis.

The spontaneous umbilical pain persisted for upwards of three months without its being possible to discover any tender spot other than the one in the right iliac fossa. It will be seen, then, that intestinal inflammation, especially ileo-cæcal inflammation, may reveal its presence by ectopic pain which, as a rule, is located in the umbilical region. This deceptive pain must not be allowed to mislead us. A subjective pain which does not correspond to a subjacent objective pain, so to speak, is to be regarded with suspicion. We must therefore look for the true cause of the pain outside the zone in which it occurs spontaneously. Very often the exact site of the lesion is the seat of objective pain on palpation, but not felt subjectively in that spot.

Other observations tend to confirm this view. In children suffering from ascarides we often get very severe attacks of stomach-ache, of verminous colic, and, as a general rule, the pain is referred to the umbilicus. Now in the course of *post-mortem* examinations Professor Guiard and I have found that the round worm is usually lodged in the last segment of the small intestine corresponding to the right iliac fossa and not to the umbilical region. For that matter the right iliac fossa is usually tender on pressure.

I recently had under my care a very interesting example of this ectopic abdominal pain. A young fellow, æt. 20, an agricultural labourer, was admitted to hospital with a diagnosis of appendicitis. Six months before he had been seized with sharp pain in the right iliac fossa which obliged him to keep his bed, and there he had remained ever since. At the date of admission he had lost 45 pounds in weight in six months and had a pale yellowish complexion indicative of chronic infection. He complained especially of pain from which he was then suffering and pointed to a particular spot in the right iliac fossa, roughly corresponding to McBurney's point.

We palpated him very thoroughly, but to my surprise it caused him no pain even when I palpated deeply in that region. Then, too, there was no muscular resistance and no trace of inflammation could be detected in the right iliac fossa. More than that, palpation seemed rather to relieve the patient, and he told me that he had often obtained relief himself by pressing heavily on this part, adding that he had never felt any pain or tenderness when his doctor palpated him.

It seemed to me, therefore, that the case must be one of pseudo-appendicitis, so I set to work to find out the seat of the objective pain. The regions of the gall-bladder, the epigastrium and the sigmoid flexure were quite painless and supple, so I turned to the lumbar region. Nothing abnormal on the left side, but on the right rather strong pressure caused pain. I could localise the pain in the last intercostal interspace and the adjacent subcostal region. In view of the fact that the temperature pointed to the existence of chronic infection, oscillating between 99.5° and 101.2° F., it seemed likely that this was the seat of the infection. We examined him radioscopically and found that the right lung was pushed up in a marked degree by a conical prominence resembling that of the diaphragm. Exploratory puncture revealed the presence of pus containing a few cocci and numerous disintegrated polynuclear cells.

M. Bert operated and found not a sub-diaphragmatic abscess but a posterior diaphragmatic purulent pleurisy of very old standing, as shown by the thickness of the pleura and the degeneration of the pus. The patient soon began to improve, put on 33 pounds in three weeks and ultimately completely recovered. You see, then, that this was a case of pseudo-appendicitis, in reality diaphragmatic pleurisy, not a secondary pleurisy since there never had been any tenderness in the right iliac fossa.

The "objective" pain was situated some distance away in the right lumbo-thoracic region. As a matter of fact as soon as we had established the diagnosis we were told that the "appendicular pain used sometimes to radiate to the right and into the back, but as it is also radiated all over the abdomen only the appendicular region, where the false pain was worst, had attracted attention."

The existence of this ectopic subjective abdominal pain was confirmed by Mackenzie in the course of an operation which throws light on their pathological physiology. "I had occasion," he tells us, "to resect the intestine with the patient fully conscious under the following circumstances. He had umbilical hernia, and for some years he had been wearing a truss so tight that the skin had become ulcerated. The ulcer had actually involved the intestine and fæces escaped through the fistula. I decided to resect the intestine but the patient refused to be anæsthetised. Seeing that the skin was already ulcerated and that the tissues of the external abdominal wall were not very sensitive I thought it might be possible to open the abdominal cavity without giving much pain. Things turned out as I had anticipated. I was able to break down numerous adhesions, some old, some recent, separating them from the liver and intestine, resect part of the intestine and mesentery, to suture part of the intestine and mesentery, and to put in my sutures without giving the patient any pain. I noticed, however, that now and then he shrunk as if in pain, when I was not touching him, and on looking for an explanation I noticed that the upper part of the resected intestine, which had been placed on one side wrapped in antiseptic gauze, was occasionally the seat of peristaltic movements. When I asked where he felt the pain he still referred me to the umbilicus. I deliberately excited the intestine to peristalsis, and each time the patient complained of umbilical pain. I had the cause of the pain before my eyes and its source was at least twelve inches from the part where the pain was felt."

Such, then, is the usual history of these ectopic pains; they have been referred to by surgeons in connection with both true appendicitis and false appendicitis, yet many practitioners still allow themselves to be misled into attaching importance to their fallacious significance.

In arriving at the diagnosis of an abdominal lesion we ought only to take into account pain felt on palpation. Subjective pain, it is true, is often accompanied by objective pain, but they may occur separately. The objective pain may be situated in the thorax or abdomen and be worse on palpation, whereas the subjective pain manifests itself at a spot often far removed and may be relieved by palpation. These constitute fairly distinctive features, enough, one might suppose, to obviate the risk of confusion.

All these cases seem to admit of the same explanation. In all the real pain was not felt at the same place as the spontaneous pain, and we cannot invoke in explanation any "stimulation" of the wall by a subjacent inflamed viscus. On the other hand we are aware that irritation of a nerve at some part of its course gives rise to pain at the terminations of its branches and not at the site of the irritation.

In the case of diaphragmatic pleurisy above mentioned there was probably irritation of the trunks of the eleventh and twelfth intercostal nerves, which end in the upper part of the iliac fossa. The very situation of the lesion justifies our assuming irritation of the trunk of the big abdomino-genital nerve, many peripheral branches of which are distributed in this region.

I may add that Head's researches go to show that "a diseased abdominal viscus is manifested by peripheral pain always in the same spot, corresponding to the metameric medullary segment which comprises the sensitive centres of that organ and those of the painful cutaneous zone." This zone is not necessarily situated over the sick organ, indeed it may be at some distance therefrom.

Intestinal irritation due, in cases under my observation, to the presence of ulcers caused by tuberculosis or round worms has invariably manifested itself in the umbilical region. In some instances the visceral trouble is associated only with subjective pain which is relieved by strong pressure. In these cases we must institute a careful search for the objective pain in a spot which is tender and painful on palpation and is exaggerated by pressure. The operation that is called for will hardly ever be in the region of the subjective pain, but almost always at the precise spot where palpation shows tenderness and where strong pressure excites objective pain.

Note.—*A Clinical Lecture by a well-known teacher appears in each number of this Journal. The lecture for next week will be by V. J. McAllister, M.B., F.R.C.S.I., Extra Assistant Master, Coombe Hospital, Dublin. Subject: "The Kidneys and Heart in Pregnancy."*

ORIGINAL PAPERS.

SOME CASES OF DISEASE AFFECTING THE PYLORUS AND NECESSITATING GASTRO-ENTEROSTOMY.

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This paper is largely based upon notes taken of cases in which I have performed gastro-enterostomy. In the majority of instances posterior gastro-enterostomy was performed, and only in my earlier cases did I perform anterior gastro-enterostomy.

After-histories are of the greatest value, more especially in clearing up doubtful points in diagnosis, and in no cases are they more valuable than in patients upon whom gastro-enterostomy has been performed.

I wish to mention some points bearing upon disease of and in the neighbourhood of the pylorus, and the first I shall consider is this—that nowadays pyloric obstruction is easily diagnosed, always bearing in mind the existence of such conditions as "dilated œsophagus," "hour-glass stomach," and growths in the first portion of the small intestine, usually the jejunum. Now, the obstruction may be caused by the ulcer itself, by a malignant growth, or by the ulcer causing matting of the adjoining structures and kinking of or at the pylorus. I am not going to discuss the pyloric stenosis of children.

With regard to the conditions mentioned, I must plead guilty to having done a posterior gastro-enterostomy some years ago upon a patient who had a dilated œsophagus. Nowadays, when a bismuth X-ray is quite a *sine qua non*, this mistake could hardly occur. I took the diagnosis given me of dilated stomach as correct. In this case the man, æt. 52, had stomach trouble for years, vomiting his food soon after he had taken it. His stomach was dilated, and the obstruction was supposed to be at the pylorus, but no X-ray was taken. On January 12, 1909, I did a posterior gastro-enterostomy. His stomach was dilated, and my note says: "There is a mass in his pylorus which is very hard in one place." Two days after operation he commenced coughing, and ten days later he died. *Post-mortem*, he had evidences of old tubercle; his pleura was very adherent on the left side; he had a hugely dilated œsophagus, full of food, with a narrow cardiac orifice blocked by a piece of bread; his pylorus was thickened, but not so markedly as at the time of operation. He died from double pneumonia.

Hour-glass stomach, according to Dr. Holland, is far commoner than we usually suppose, and it is always well to bear this in mind. Perhaps one of the best results I have had was in the case of Mrs. J., æt. 40, who had suffered for many years from pain and vomiting coming on several hours after taking food. An X-ray examination showed an hour-glass stomach. On August 10, 1909, I operated on her, and found a small stomach, with an ulcer in the lesser curvature which had caused hour-glass contraction. I pared the adjoining sides of the pouches and united them, making a small but useful stomach. This woman nearly five years later is stout and well, and I invariably receive some article of diet on the date of her operation and on other feast days.

Now we come to cases resembling pyloric stenosis in which there is a growth of the small intestine high up.

I think these cases are rare, and I have only met with one myself; but in the *British Medical Journal* for Jan. 17, 1914, one appears in which the growth, an endothelioma of the jejunum, produced symptoms suggestive of pyloric stenosis. The growth was situated eighteen inches below the duodenojejunal junction, and as a result of back pressure the stomach was twice the normal size.

In my patient a tumour was felt in the right iliac region. The man, æt. 32, had suffered from symptoms of dilated stomach, and I was asked to perform gastro-enterostomy on the afternoon on which I first saw him. I opened him in the middle line: his stomach was dilated, but I could not find the first portion of the jejunum. I therefore cut down over the lump in the right iliac region, and removed a growth of the small intestine, doing an end-to-end suture. He did well, but I have been unable to trace him. The operation was performed on June 26, 1907. The growth was a sarcoma of the jejunum. In three cases I have operated for dilated stomach, caused by inflammatory conditions involving the pyloric end of the stomach and adjoining parts, and in two of these I performed gastro-enterostomy; the third did not need it. In the first case the man, æt. 58, had symptoms of pyloric obstruction, and also of gall-stones. At the operation I found an inflammatory mass involving his duodenum, pylorus, and gall-bladder; the latter was full of stones. I did a posterior gastro-enterostomy, leaving the gall-bladder alone, and he was in good health some years later. My idea was to deal with the gall-stones at a second operation if they caused inconvenience. He was operated upon on January 21, 1908, and I have since heard from Dr. L. Morgan that he has had attacks of gall-stone colic, so that it would have been better if he had submitted to a second operation. The stomach condition is quite satisfactory.

In the second case a young woman was sent in to the Southern Hospital suffering from constant vomiting. She had been operated upon for perforated gastric ulcer some months before. On opening her abdomen I found that her pylorus was adherent to the anterior abdominal wall on the left side, so that her stomach was doubled on itself. By freeing the adhesions and sewing over the raw surface a cure was obtained.

In a third case I operated upon a man for chronic appendicitis. It was a difficult case, and there were many adhesions involving the cæcum and ascending colon. Ten months later stomach symptoms commenced. On opening his abdomen I found the pyloric end of his stomach fixed by dense adhesions to the right side of his abdominal wall. I separated it, and then did a posterior gastro-enterostomy in the usual way. The result was favourable.

My second point is the difficulty of diagnosing the nature of the growth in some cases even when it is exposed by the surgeon. When a patient æt. 30 or thereabouts comes and tells us that he has pain after food, that he vomits large amounts of fermenting food and that he is relieved by the vomiting, that he is losing flesh, and that blood has been noticed in his stool or vomit, we conclude that he has a duodenal or pyloric ulcer causing obstruction to the exit of food from his stomach. If, in addition, we can feel a lump, our diagnosis is pretty certain to be correct. A bismuth meal will show that the food does not leave the stomach as it should, and our diagnosis of obstruction in the neighbourhood of the pylorus is readily made. We have not, however, got at the nature of the obstruction; it may be simple or it may be malignant, and we very often cannot make a definite diagnosis—at least, judging from the failure of men of repute to do so. In support of this contention I quote the case of a man, æt. 39, who was allowed to leave one of our hospitals with a diagnosis of cancer of the pylorus, and told that nothing could be done for him; this was in 1904. He had a lump the size of an orange in the region of his pylorus and obstinate vomiting. On the off-chance of relieving him I did an anterior gastro-enterostomy. He put on weight rapidly, and when I saw him ten months later the lump could not be felt and he was working as an engine-driver. I take it that every test was applied in this case, as he was under a capable and scientific physician, but the diagnosis was evidently wrong. Now, I maintain that there are a certain number of cases in which, even after the stomach contents have been examined, even after a laparotomy has been performed and a section made of the glands or growth removed, yet a wrong diagnosis is arrived at. It is most important from the surgeon's point of view to have a diagnosis made at the time of operation, for the following reasons: (1) It is much easier to remove a pyloric growth the first time the abdomen is opened and before the gastro-enterostomy is done than to do it as a secondary operation. (2) You may never get a chance of doing it as a secondary operation. On the other hand, there are advantages in delay, for a patient on the verge of death may pick up sufficiently to stand the somewhat severe operation entailed by removal of the growth. Again, the growth may disappear. Quite recently I operated upon a man who had had a posterior gastro-enterostomy performed for supposed pyloric carcinoma. When, however, I came to remove the growth I found it had shrunk to half its original size, but there were endless adhesions as a result of the gastro-enterostomy. I contented myself with freeing these, and the man did well. It was most instructive to notice how quickly the lump disappeared after the gastro-enterostomy. It was the size of a Tangerine orange, and it practically disappeared in six weeks' time. The nature of the growth is difficult to diagnose in some cases even when it is exposed by the surgeon. Whilst looking over some papers the other evening I came across the pathological report on some glands removed from a case of supposed pyloric cancer. The gland was reported to be malignant. This report was dated October 19, 1909. Now the woman is, I understand, quite well at present—at any rate, I saw her in August, 1912, nearly three years after a gastro-enterostomy had been done, so that the diagnosis was wrong, for if the growth had been malignant the woman would have been dead long ere this. This case shows how difficult it is to diagnose the nature of a mass involving the pylorus. At the operation the gall-bladder was adherent to the pylorus, the pylorus to the liver. The pylorus was thick and hard, and there were several large glands between the stomach and the curve of the duodenum. Where the evidences of inflammatory trouble are as marked as in this case, the probability is that the condition is an innocent one. Dealing with probabilities, a pyloric mass in a patient up to the age of 40 is very likely innocent; after that period there is a likelihood of its being malignant, but we know that patients of 71, 73, or 75 may be affected with simple ulcer. In fact, a man, æt. 73, was admitted under my care with a perforated gastric ulcer from which he was dying. *Post-mortem* the ulcer was quite a simple one. But, generally speaking, old age is in favour of malignancy, and it is most common between the ages of 40 and 60. I often wonder how long a patient may suffer from an ulcer of the stomach before it becomes malignant. I think the condition may go on for years. Take the old chronic ulcers of the leg which used to be so common, and which are still to be found in our infirmaries; they rarely become malignant. But most of us have seen cases in which carcinoma has at length developed. I have under my care at present two cases of burns in which carcinoma has developed. I should think much the same thing occurs in the case of the stomach, for ulcer is undoubtedly very common. Again, the ulcer which produces an hour-glass constriction must have existed for a long period before it produces the well-known condition, but very few are malignant. As an instance of the long duration of ulcer of the stomach, I mention the case of a woman, æt. 42, who was admitted under my care in the most emaciated condition—she really resembled an "Indian famine victim." There was resistance of the upper part of the right rectus, but I thought I could detect a tumour which varied in size. The bismuth meal did not leave the stomach for eight hours, and had not all gone in twenty hours. She vomited incessantly. Her history dated back for twenty years, but during the last year she had been worse and had wasted rapidly. The diagnosis was a malignant pylorus. I did a rapid posterior gastro-enterostomy, removing a gland from the lower border of the stomach, which proved to be malignant. The mass itself was very soft, and about the size of an orange. The lesser curvature was scarred, and had evidently been the seat of old ulceration lasting for years. The liver was papulated with soft nodules. Apart from the condition of the patient, the growth was inoperable, and one could only regret that she had not come for operation five years earlier. No doubt this class of case will disappear with time, just as enormous tumours of all sorts have become rarities. The advance of surgery has made the necessary operation comparatively simple. As far as the gastro-enterostomy went, the woman never turned a hair. I may here say that it is, in my experience, wise not to manipulate a malignant growth of the stomach any more than is absolutely necessary, otherwise a severe hæmorrhage may follow.

A supposed simple case may turn out to be malignant. That we must not be led away by the youth of the patient recalls to my mind the case of a woman, æt. about 30, whom I operated upon for some intestinal trouble, apart from a gastro-enterostomy she had had done in London. I felt a tumour in her pylorus; it felt soft, and the mere handling of it made it bleed—in fact, the hæmorrhage which followed the operation nearly cost her her life. She got over her operation, but I heard that she died from cancer of the stomach a year later. In this case and the last one the growth felt like a soft mass through the stomach wall, and was evidently very vascular; it had not the firm, consistent feel of the pyloric ulcer.

Is it worth while doing gastro-enterostomy for malignant disease of the stomach? I think it is—firstly, because there is a chance that the diagnosis is wrong; and, secondly, because the operation usually gives relief, if only for a short period. In one of the first cases I did, the vomiting stopped and the man lived for six months and was fairly comfortable. This was an anterior operation. Since that time I have done several cases with relief to the patient from the constant vomiting. Two of these cases were practically acute, inasmuch as the vomiting was so continuous as to threaten life.

About four years ago a man, æt. 41, was admitted with a hugely dilated stomach and with a pulse of 120. He vomited three pints of fluid, and five more were washed out; his pulse then dropped to 90. There was a question as to whether he might not perforate, so I operated upon him, doing a posterior gastro-enterostomy. He had a duodenal ulcer, and an inflammatory mass bound his pylorus down. It was a very difficult operation, but he did well and is well at present. His son consulted me only the other day with symptoms pointing to duodenal ulcer, so it evidently runs in the family.

I have been able to find the sections of two cases supposed to be malignant, in which the patients have lived for over four years since operation. These sections were submitted to Professor Beattie, who thinks them innocent. The condition is one which occurs in chronic inflammation of the pylorus, and is rather puzzling until one becomes familiar with it. I think Alexis Thomson pointed this out at Edinburgh some years ago, and it rather confirms the view of most surgeons that in pylorectomy for malignant disease the prognosis is distinctly unfavourable, and that the cases which have survived for many years have probably been innocent in nature. The following is a good instance of this class of case :—

Mrs. R. was sent to see me on account of a lump in her abdomen, accompanied by constant vomiting. She was æt. 37, and had suffered from indigestion for twenty years. She had been informed by a specialist in Glasgow that she had a floating kidney. On examination she had a dilated stomach, and in her epigastrium a lump could be felt the size of a Tangerine orange, which could be pushed across the abdomen from side to side. I advised her to submit to operation. An X-ray confirmed the diagnosis. On October 26th, 1909, I did a pylorectomy and then a posterior gastro-enterostomy. She did well, but developed a small gastric fistula, which I closed on November 28th, 1911. The fistula did not develop until ten months after her first operation, and was caused by the silk working out. In July, 1913, she was well, and is still well now, more than four years after her first operation. I looked upon this as a successful operation for malignant disease of the pylorus, but now feel sure that the growth was not malignant. This case has impressed me very much, as the lump was so definite, and at the time I was convinced it was carcinomatous. Glands were also affected.

What is the value of the supra-clavicular gland enlargement ? I always look for it, but only remember one case in which it was present at a comparatively early stage.

I should like to mention a case in which I did a posterior gastro-enterostomy which gave me no end of trouble and anxiety. He was a man, æt. 26, with duodenal ulcer, and I did the usual operation, but did not close the hole in his transverse meso-colon. The operation was on February 22nd, and on April 26th I re-opened his abdomen, as he was constantly vomiting. I found the whole of his small intestine in the lesser cavity behind his stomach. The intestines were empty, and it was not until they were reduced that I could find the anastomosis opening ; this I enlarged, and closed the hole in the meso-colon. He continued vomiting, and on May 7th, as he was rapidly going downhill, I again opened his abdomen. Everything was matted, and whilst exposing the anterior surface of the stomach it tore open. Taking this as a hint, I did an anterior gastro-enterostomy, as it was evident the posterior opening was not acting. He slowly recovered. I saw him two years later. His weight had increased from 92 lbs. to 137 lbs. His only complaint was that bile regurgitated the first thing in the morning, but he could eat meat and potatoes, and felt better than for the last six years. Moral : In doing a gastro-enterostomy do not omit the smallest detail.

After-treatment should be carried out, but usually is not ; and in one of my patients, a horse-dealer, the reckless manner in which he lived caused ulceration of his opening and hæmorrhage eighteen months later, from which he died. Another man told me that after an operation for perforated duodenal, followed by a gastro-enterostomy, he went to the Isle of Man and tried how much he could eat, but he is still in good health.

In one of the last cases in which I did a posterior gastro-enterostomy the patient was æt. 71. The ulcers felt hard, and the pylorus was fixed ; the liver felt normal, and no glands were evident ; hydrochloric acid was present. As far as I can see, only time can reveal the nature of the growth in a case of this sort. Consequently, it behoves us to be very cautious in our prognosis, for we are very liable to be mistaken.

SOME COMMON ERRORS IN NEUROLOGICAL DIAGNOSIS AND TREATMENT.

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(*Concluded from page* 496.)

Errors Relative to Hysteria.—It is not possible for me to cover a tithe of the disorders concerning which the fundamental error of thought already spoken of is rampant ; but I must allude to hysteria in this connection in order to say that emotivity is not hysteria, nor is capriciousness nor fantastical behaviour nor mere foolishness. The treatment of such symptoms in the belief that they are hysterical is doomed to failure. Hysteria is perhaps the only disease of mental *causation* and of which the treatment must be purely psychological. It is essentially quite simple. The prevalent belief in its essential multiformity is an error accountable for the apparent difficulty of its therapeusis, which is in reality quite easy. The proof of this iconoclastic affirmation is afforded by the cases I have published, (*a*) and its theoretical basis which we owe to Babinski, I have also set forth at length. (*b*)

A common neurological error is the confusion of hysteria with psychasthenia, asthenic states and dementia precox. To general practitioners such an error is excusable, and it is beyond the province of a general society. But the frequency of the diagnosis of hysteria in cases of gross organic disease must be spoken of. This is particularly common in cases of cerebral neoplasm, especially of the frontal lobes. As I have said, peculiarity of humour is no criterion of hysteria the symptoms of this are merely those produceable by suggestion, and hence should make us look for some other cause and demand a thorough neurological examination. The following case will illustrate :—

Thalamic Tumour in the Ventricles with Frontal Symptoms.—This patient was seen with Dr. Roy. Anamnesis could reveal only a marked

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(*a*) *Wash. Med. Annals*, January ; *Post Graduate*, June, 1912.

(*b*) "Internat. Clinics," 1908. Vol. III. ; *Brit. Med. Jour.*, March 1909 ; *Jour. A. M. A.*, December 21st, 1912.

mental torpor, with an occasional fatuous response, so it was soon abandoned and the physical examination proceeded with. There was shown a marked, although equal, exaggeration of the patellar and Achilles reflexes and an absence of the abdominal and cutaneous reflexes. This, of course, was an index of interference with the functions of the precentral gyri, but afforded no localising information, on account of the absence of inequality on the two sides. The plantar response, however, gave further information, for while it was of the flexor type on the left foot, which showed that the projection fibres were but little affected, there was on the right side, although the great toe flexed, a marked spreading and extension of the four lesser toes. This indicated an interference with the right pyramidal tract of a greater degree than was shown in the left corresponding tract, *i.e.*, if the lesion were supratentorial, it would be on the left side of the brain.

The motility could not be satisfactorily examined, for voluntary movements could not be commanded. Inspection of involuntary movement showed a distinct asymmetry of the face, the left side being more flaccid than the right, but the patient could close either eye independently. The pupils were widely dilated and iridoplegic. There was a drooping of the left side of the palate and an occasional slight deviation of the ocular axes. The grasp was very feeble. There was marked congestion of the eyelids and choking of the optic disks. No deafness was perceptible.

As the patient could not co-operate satisfactorily, further examination was postponed until the next day. This was done at George Washington Hospital, where she was taken. She was lying in a semi-coma, groaning, and restlessly and slowly moving the left arm and leg. The significance of this was not adequately estimated at the time. The pulse was small and not slow. The palate was no longer deviating. Reflexes of the right arm were more active than those of the left, this again pointing to a left-sided lesion. There was an exudate in the left of the disk.

The following day the facial paresis had disappeared. There was no longer extension of the outer toes. The arm movements were less. The disk was not more choked. She appeared to see better. She was more collected, and said that there was pain in her forehead and slight pain in the occiput. Furthermore, she was able to respond to the test for the diadokokinesis, which showed that although the movements were very slight, this function was not impaired.

The papillœdema and the coma disappeared; but as no definite focal symptoms appeared then, it was decided not to operate at the time and the patient returned home.

Moria was then the most marked feature of the case. This symptom, consisting of an ill-timed facetiousness of somewhat infantile humour is regarded as characteristic of frontal lobe involvement; and we believed that the neoplasm might be in the corpus callosum, as there were no convulsions such as are apt to occur as a frontal growth extends backwards toward the Rolandic area. There was also an absence of the mutism which occurs in some cases of large left frontal tumour. But the left could not be decided upon, for while the toe sign and increased right arm reflexes and deviation of the palate to the left pointed to an interference with the left projection fibres, the weakness of the left face contradicted this. However, the excursive movements of the left arm and leg were, as I now believe, erroneously interpreted as part of the general restlessness of semi-coma which could not show itself on the right side because of the supposed interference with motility by a lesion of the left frontal lobe pressing backward enough to impair right-sided movements.

Soon afterwards, examination showed a positive Babinski sign bilaterally. The Kernig angle on the left was 60 degrees, and on the right, was 70 degrees. The uvula was deviated to the left. The left face was comparatively inert. The right lesser toes again extended on stroking the sole. There was a moderate starring of the right papilla, without bulging or distinct exudate. The inertia of the left face, recurring again, contradicted the other signs, all of which pointed to a lesion of the left side. This appearance of the face may have been due to a general inertia with a relative irritation of the right side of the face; but this was not adequately considered at the time, I regret to say.

Although she was either very somnolent or silly and flighty, on one occasion, although she could hardly recognise people, while being tested for a passing diplopia, she said when I covered the left eye that the left object vanished.

Through a misunderstanding, I was not able to be present at the operation, and Dr. Carr decided to explore the left frontal lobe. Any relief thus given did not improve the symptoms, and the patient died some days later.

Interpretation of the Symptoms.—The intense moria was certainly not due to the thalamic lesion found *post mortem.* It is a symptom of impairment of the function of the frontal lobes, and was due to intense pressure of these lobes produced by the damming of the cerebro-spinal fluid into the anterior limbs of the lateral ventricles by the blocking of its passage through closure of the third ventricle by the growth in the left thalamus extending across the sagittal plane. Thus it was a frontal syndrome from which the patient suffered, although the growth was not frontal, but thalamic.

Had the visual fields, however, been carefully explored before the occurrence of the internal hydrocephalus, it is hardly likely that some hemianopsia would not have been found on account of the interference with the fibres leading from the optic tractor those from the calcarine region *en route* to the thalamic region. Again, an examination of the attitude sense would have revealed a distinct impairment, on account of the interference with the afferent fibres from the spinal cord which find their last relay station in the thalamus before proceeding to the cortex. It is likely, too, that other forms of sensibility might have been impaired in some degree, and an incomplete hemihyperæsthesia might have been revealed had the patient been examined neurologically before the pressure upon her frontal lobes prevented intelligent responses. The thalamic form of ataxia should also have been revealed had she been able to perform the movements required for ascertaining the defect. But when I first saw the patient, none of these tests could be performed, and the syndrome was an almost purely frontal one, and entirely prevented the diagnosis of the condition which led to it so that we were helpless, even during the operation.

This case affords another illustration of the supreme importance of a proper neurological examination of cases of cerebral tumour before the tension has increased so as to prevent co-operation on the part of the patient, and before the focalising signs become masked by remote signs such as dominated the picture in this case.

Although in this particular case the tumour was not accessible to surgery, in other cases, especially those in the posterior fossa, the local signs are very readily masked by those remote ones due to blockage of the ventricular circulation.

Above all is it important that patients exhibiting what is often loosely called hysterical behaviour should be examined by a competent neurologist, to ascertain if the genesis of their peculiar conduct is really hysterical in mechanism or whether their peculiarities are not those of pseudo-hysteria from organic defect. I cannot repeat too often that the diagnosis of hysteria should never be made by exclusion, but always, if possible, by its genesis, and if that is not possible, by the form of the syndrome exhibited—by which is meant the inconsistency of the symptom shown with those of the topographical arrangement of physiological groupings characteristic of organic or functional disease arising in the body as against their consistency with functional groupings comprised under the psychological rubric, association of ideas.

The reverse error, *viz.*, of diagnosing something else when the symptoms are exclusively hysterical is also quite frequent as in my case of hysterical phobia diagnosed as epilepsy. (*a*)

The error is very common in regard to paralysis.

A knowledge of psychopathology is of course the remedy, but this knowledge becomes dangerous when it leads to the ignoring of physical conditions in a case which is also hysterical. It must be remembered, however, that the most frequent of all the suggestions of bodily disease is bodily disease itself, and the removal of a hysterical fixed idea concerning one's health is not sufficient in a patient in whom some physical disorder also exists. (*b*)

Suggestive therapeutics, which is so much vaunted by some, I consider a *grave neurological error.* Psychotherapy should be a constructive growth built on analysis, and not a mere imposing of behaviour upon the patient willy nilly, through a side tracking of his attention by electricity, hypnosis, joint manipulation, or religion. Two instances follow in which the inefficacy of such procedure is shown :—

A prominent real estate man in one of the larger southern cities was attacked recently by the condition which precedes and leads to arteriosclerosis. A specialist ordered certain exercises and a dietary. But the real estate man adopted Christian Science. He believed himself to be cured, and was obsessed with the idea that "all is God—God is good—all is good." His natural business caution was replaced by an unreasoning and happy-go-lucky optimism. Result—ruin and suicide in four months.

Sending Patients to Sanatoriums.—Finally, a serious neurological error is the sending of a patient to a sanatorium for nervous diseases without knowing the class of treatment to be given. A proper diagnosis should first be made, for this will often obviate the procedure of sending the patient to an institution and the stigma it involves. Besides, it is the "man behind the gun" who counts after all.

Longing to put an end to his life, having tried to drown himself and taken laudanum, a farmer's son, aged 24, was sent to a sanatorium. Toward the end of his stay of seven weeks, he crushed and swallowed an electric light globe. He was removed, and immediately drank laudanum again. He was then brought to Dr. Hooe in Washington, who placed him in a general hospital and called a neurologist, who at once began to analyse into the cause of the lad's impulse to kill himself. Less than two hours sufficed to ascertain the cause, which was, in short, that he felt dispirited, and hence ill all the time, because of nagging of the family and others. Too shy to assert himself, he had for a year sunk into solitary dulness, which made him a laughing stock. The result was that the least correction or even suggestion about farm work would be taken as an insult. On one occasion, for example, a neighbouring farmer, who wished him to plant the corn differently, was believed by his mother though the patient knew the neighbour was quite wrong, and he felt all the time he was disregarded or put upon unjustly. His own sheepish attitude of course encouraged others to treat him in this way. He once left home to escape from this and worked in California, but did not make a success.

Stated briefly, the condition of his attitude towards the surroundings was his own shame at his erotic fancies and masturbation, which he feared would injure his mind, as other boys teased him about it. The result was that he became ultrascrupulous and intolerant of other boys, which led to the solitude which aggravated his tendencies. He believed now that something was wrong with his brain; but he felt that if he could be cured he would be contented to live.

On this basis, a full explanation was made of the harmlessness of his onanism, and the mechanism of his difficulties was explained and means for their overcoming were outlined. As a result, he went home within two weeks and is now working cheerfully on his mother's farm and even mixing in society, his family having been instructed how to help him instead of harming him as they had previously done.

(*a*) Described in *Archives of Pediatrics*, February, 1913.

(*b*) Some of the cases I presented to the District of Columbia Medical Society and published in the "Post Graduate," June, 1912, are of this type.

THE NECESSITY FOR REFORMING THE CORONER'S INQUEST. (*a*)

By J. C. McWALTER, M.D., LL.D.

According to Coke, the Coroner was so called because he had principally to do with pleas of the Crown. The Lord Chief Justice is said to be the principal Coroner of the Kingdom, and may in any place exercise the jurisdiction.

In the Statutes of Westminster the First it was ordered that none but lawful and discreet knights should be chosen as coroners, and Blackstone laments that in his time it had degenerated from a lofty and honorary office to a paid appointment in the public service. The coroner is now primarily an officer of the county, elected

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(*a*) Paper read at the Meeting of the British Medical Association, Aberdeen, July 30th, 1914.

by the freeholders, but in certain liberties and franchises he is elected by the Crown, or by lords holding a charter from the Crown. By the Municipal Corporations Act certain boroughs may elect Coroners.

His duties are supposed to be defined mostly by the old statute of 4 Edward I., st. 2, whereby he must make inquiries on oath concerning those slain or suddenly dying or wounding, or whose houses are broken, or treasure said to be found.

The inquisition must be "super visum corporis"; if the body be not recovered the coroner can sit only in virtue of a special commission. By a more recent statute it is provided that only the coroner within whose jurisdiction the body is found lying dead shall hold the inquest, although the cause of death may have occurred elsewhere. The Crown or any party suspected may tender evidence. The doctor attending the deceased may be authorised to attend, and the coroner may order a *post-mortem* examination. If the jury are not satisfied they may name any qualified practitioner, who shall be required to attend and give evidence or make the autopsy. If a person be found guilty of homicide or murder the coroner shall commit him to prison for trial; he shall supply the material evidence to the court, and bind over the proper persons to attend and give evidence at the court. He is required to hold an inquiry on any person executed as a criminal.

The question of a coroner's inquest is one requiring judgment and tact as well as delicacy. In presenting circumstances there is often too much inquiry. In case of a railway accident it may happen that bodies lie in two or three different jurisdictions in respect of the same accident. In a criminal case, there will be a public inquiry before the coroner, a private one before the grand jury, a public inquiry before the police magistrate, and a trial at sessions.

The coroner has suffered a species of evolutions. First an officer of the Crown, his function was to ascertain how a person came by his death, in order that he might learn if the King's peace were broken. In the next place, he had to do with pleas of the Crown. In due time, his chief duty was to investigate the cause of and the responsibility for sudden death. Now, however, in every large city the time of the Coroner is chiefly taken up with cases which may come under the operations of various Acts of Parliament—the Workmen's Compensation, the Employers' Liability, the various Insurance Acts, and a host of others, which are being added to every day. The coroner's court is cheap, open and prompt, and the local reformer who gets there as a juryman is given the best opportunity of airing views which may be the harbingers of great social changes. In a word, the coroner's court has become a tribunal of the greatest importance to the citizen, to the manufacturer, and to the State generally, and it should be no longer regarded as a side show bringing in a few extra guineas per annum to a doctor, or an adjunct to the practice of a needy solicitor.

Certain reforms are so manifestly necessary that they need only be enumerated in order to acquire universal sanction :—

1. As regards qualifications, the holder should be a registered medical practitioner, who is also a barrister or LL.B., or a solicitor who is on the Medical Register.

2. As regards election—the office, being an important non-political post, should not be by popular election, whether by vote of freeholders or by the Municipal Council.

3. As regards payment, this should be, not per inquest, but per annum, subject to revision. Where revision of salary is provided for, periodically, a claim for increment should not rest merely in an increased number of inquests, but regard should be paid to the number of witnesses, and the number of hours engaged, etc.

4. A capable coroner's clerk should always be provided. He should be able to supply shorthand notes.

5. The coroner should have the power, independent of the jury, of having a *post-mortem* examination performed and paid for. He should also be able to get the views of necessary experts.

6. The coroner should have the power in university towns or the like to utilise the material of the inquest for the purpose of teaching statistical jurisprudence. This science in England is in a childish and absurd position.

7. Questions of criminal negligence, which now involve several trials, should so be dealt with that a series of inquiries cannot be held on the same question.

8. Where a coroner's inquest tends to resolve itself into an inquiry fixing responsibility for damages, the coroner should have definite powers to confine such inquiry to simple investigations of fact bearing on the immediate cause of death.

9. In no cases are poor and illiterate people so unhappy and unprovided for as in cases of inquest concerning the sudden death of perhaps the chief support of the family, and the coroner should have power, when he thinks fit, to assign a solicitor to look after the interests of the family afflicted if they are too poor to do so.

10. Every uncertified case of death should *prima facie* be the subject of a coroner's inquest, but the coroner should have discretion not to hold the inquest when he thought fit.

11. A legal assesser should be available for every coroner in cases where he thought such help desirable.

12. Where the publication of certain parts of the proceedings might work injustice the coroner should have power to restrain their publication, subject to appeal.

OPERATING THEATRES.

ST. THOMAS'S HOSPITAL.

Appendicitis with General Peritonitis—Death from Secondary Hæmorrhage.—Whilst waiting to operate upon a case of acute appendicitis, Mr. CORNER related his experience of the case referred to in the title of this record, as it was specially worthy of notice.

A boy of about ten years of age was operated upon for acute appendicitis with an unlocalised collection of pus in the right iliac fossa, whence the infection was spreading to the general peritoneal cavity. The sloughing appendix lay internal to the cæcum in the situation where infection from it rapidly spread to several coils of small intestine, and very speedily inflamed a large area of peritoneum. It must be borne in mind that the condition of these peritonitis patients is almost always more serious than it appears, because the peritoneal infection occurs first, and the peritoneal inflammation is an index that the infection is being resisted. Thus toxæmia has a few hours precedence to inflammation, which is the reaction of the peritoneum to that infection. The boy's condition was very serious. The appendix was rapidly explored, delivered and removed through an incision splitting the lower part of the right rectus muscle. The abdomen was drained by a gauze plug contained in a split rubber tube. The convalescence of this boy may be told very briefly. There was no sickness twenty-four hours after the operation. But his pulse remained quick, his respirations rapid, and his temperature raised. About four days after operation it was certain that the intraperitoneal intoxication had ceased, and these disturbing general signs were due to a broncho-pneumonia affecting both lungs. During the next few days the pulmonary condition improved; the temperature was less high, the pulse and respiration less rapid—in fact, it was felt that the boy was going to recover.

As regards the abdominal condition, there was a copious discharge of pus from the drained wound. Suddenly, without any previous warning, the night nurse found the boy unconscious, with his bed and bandages soaked with blood. The House Surgeon was hurriedly sent for, and found only an oozing wound, hæmorrhage had ceased, which he plugged with gauze. The boy died as that was concluded.

A *post-mortem* examination was made, which showed that hæmorrhage had taken place from an ulceration into the external iliac artery, the wall of which had suddenly given way and occasioned the fatal secondary hæmorrhage.

As the patient on whom Mr. Corner was operating was difficult, a demonstration was made as to the proper method of enlarging McBurney's paramuscular incision with a minimum of weakening of the abdominal wall. Shortly, the method is a combination of McBurney's paramuscular and Battle's rectus incisions. It is done in this way. The inner edge of the external oblique is retracted and the rectus sheath opened by a longitudinal incision. The exposed rectus muscle is separated and retracted towards the middle line. The posterior sheath is incised in the direction of the fibres of the internal oblique and the linea semilunaris divided. In the conclusion of the operation the abdominal wall is carefully reconstructed and the rectus muscle allowed to fall into its original position. Ample exposure in the right lower quadrant of the abdomen is obtained and the abdominal wall is scarcely weakened, except, perhaps, by division and reconstruction of the linea semilunaris. Such an incision is not so good as one through the split rectus muscle, because the layers of the abdominal wall are widely opened to admit possible infection in septic cases. It was, however, a very useful resource when incommoded for want of room in a paramuscular incision.

TRANSACTIONS OF SOCIETIES.

ROYAL ACADEMY OF MEDICINE IN IRELAND.

Section of Obstetrics.

Meeting held Friday, October 30th, 1914.

The President, Dr. M. J. Gibson, in the Chair.

Exhibits.

MALIGNANT ADENOMA UTERI.

Dr. Gibbon FitzGibbon showed a uterus with malignant adenoma removed from a patient, æt. 60. The history of the case was:—M. B., unmarried, had been told when thirty-five years of age that she had a fibroid of the uterus and advised not to have it removed. Menstruation was always normal, and the menopause occurred at forty-eight years of age normally. Since then there had been no bleeding or discharge until seven months before being first seen by Dr. FitzGibbon. Bleeding had then occurred and lasted fourteen days, and had been recurring irregularly ever since, and sometimes profusely. On examination the uterus was found uniformly enlarged, about the size of a four months' pregnancy, somewhat soft, and the cervix small and atrophic. Laparotomy and panhysterectomy were performed, and the patient made an excellent recovery. The specimen showed a soft cauliflower growth filling up the cavity of the uterus and growing all over the walls, which were very thick, about 1¼ inches, and at one part showing a line of demarcation which might have been the capsule of an original fibroid. Sections of the growth showed typical adenoma with very marked malignant characters in some parts, and invading the wall of the uterus. The cervix was quite free. A second section was shown of a non-malignant adenoma removed from a girl of twenty-eight, which had been extruded from the uterus as a polypus, and showing great similarity in structure, but without any malignant characters.

Sir William Smyly said there could be little doubt that Dr. FitzGibbon's explanation was the correct one—namely, that it was a myoma which had been invaded by a cancer. He recalled a case of a similar nature which he mistook for myoma.

Dr. Rowlette said the specimen appeared to him to be a carcinoma occurring in a uterus already the seat of a fibroid. Such an event was not uncommon where a fibroid gave rise to irritation of the endometrium. Dr. FitzGibbon's second specimen was of much interest for comparison. There was in it a great growth of glandular tissue without obvious evidence of malignancy, but nevertheless he would regard the case with suspicion.

The President said that the greater frequency of carcinoma of the body in cases where fibro-myomata were present, and the fact that degeneration of fibro-myomata was most usual after the menopause had necessitated the abandonment of the opinion that after the menopause fibro-myomata were not likely to give trouble.

FIBROID UTERUS.

Dr. Solomons said that there was nothing remarkable about the size of the specimen shown. The patient from whom it was removed was unmarried, æt. 27, and came to Mercer's Hospital complaining of uterine hæmorrhage. On examination fibroid uterus was diagnosed, though the uterus was not at all typical, being quite smooth and feeling like a case of ordinary myometritis. Palliative curettage and styptic treatment were carried out, and the patient was told to return if the symptoms did not abate. She was sent to a convalescent home, but as the hæmorrhage recurred, she returned to the hospital. She was then very blanched in appearance. The abdomen was opened in the hope of performing myomectomy, but when the uterus was opened it was found to be studded with myomata, some submucous, others interstitial. Hysterectomy was done. The case showed how impossible it was to promise myomectomy. He considered that the devotees of the X-ray treatment for myoma would possibly have looked on this case as favourable. It, however appeared to him that owing to the patient's condition there was nothing to be done but to open the abdomen and remove the uterus.

The President said that he had been puzzled on some occasions when he had to deal with such cases as Dr. Solomons' exhibit illustrated, when, owing to the infiltration of the uterus with fibro-myomata, myomectomy without practical destruction of the uterus proved to be impossible. He considered that hysterectomy was the only course which could have been adopted in this case.

Dr. Solomons said that when he saw the case first he had regarded it as one of fibroid uterus, though it was very atypical on palpation, resembling more a uterus enlarged by myometritis. He informed the patient before the second operation that he would endeavour to remove the tumours without the uterus, but got permission, if he found this impossible, to remove the uterus. He considered if this permission were not obtained it would be better to defer hysterectomy.

THE HEART AND KIDNEYS IN PREGNANCY.

Dr. McAllister gave a summary of the various conditions of the heart which might influence pregnancy, and the forms of renal lesions which might pre-exist or occur during pregnancy.

Sir William Smyly said he did not remember any patients with whom he had anything to do actually dying from heart disease during pregnancy or labour. In practice one had to go according to symptoms much more than physical signs; if the heart was competent it might be left alone, but if it became incompetent it would be necessary to try to restore it by the administration of strophanthus and digitalis, and if not successful the patient should be delivered. Speaking of affections of the parenchyma of the kidney, he had at present a patient who was three months pregnant and who showed very marked signs of kidney disease. He was not sure at first as to whether it was disease of a chronic nature or disease peculiar to a pregnant woman. He tried the patient on a milk diet, but she grew worse, and he, therefore, felt inclined to end the pregnancy on account of the size of the uterus and the fact that there was no quickening, which indicated that it was, perhaps, a molar pregnancy. The patient also developed ocular symptoms of an alarming kind. Taking all the signs, together with the fact that she was passing very little urine, he decided to empty the uterus of what proved to be a hydatidiform mole. The dropsical symptoms afterwards disappeared and the patient recovered. He thought the fact that patients improved rapidly after the removal of the ovum suggested that the ovum was the cause of the toxæmia, and hence one would imagine that to remove the ovum was the best cure. He understood Dr. McAllister to suggest that increased blood-pressure was a good thing, but in eclampsia he had always considered that greatly increased blood-pressure was the chief danger.

Dr. Hastings Tweedy said he approached the conditions discussed from a different standpoint to that of Dr. McAllister, whom he congratulated on the excellence of his communication. The latter considered that the kidney and the heart disease must be held accountable for the grave prognosis and for the associated toxic state. He (Dr. Tweedy) held, on the other hand, that all the pathological conditions found in association with toxæmia arose as a consequence of the poison, and in no instance was the poisoned state the result of the kidney lesions. He was glad to understand that the deleterious influence of milk and other foods had become recognised, at all events in Dublin, as a causal agency in the onset of eclamptic fits. It appeared to the speaker as absolutely proved that foodstuffs acted as partial poisons to almost all pregnant women. He thus accounted for the presence of morning sickness. A tolerance against these food poisons became established in the majority of instances, but when this was not so, acute toxæmic degeneration resulted. Hydræmia seemed an exception to his rule. This condition he found nearly always associated with a dead or imperfect ovum and a diseased placenta. All the other forms of pregnancy degeneration of organs could be arrested by abstention from all forms of food, combined with free purgation, and the ingestion of large quantities of alkaline water.

Dr. Crofton said that there were several points that might be suggested for investigation, the first being the bacteriology of the urine. He pointed out that in pregnancy there was usually great hypertrophy of the suprarenals, and that if the secretion of these was unbalanced it might be a cause of the high blood pressure. Another point not to be lost sight of was the influence of diet on the flora of the gastro-intestinal tract. He thought it might be possible to devise some experiments as to the nature of the protein that was being excreted by the kidneys in these cases—whether it was the food protein or the proteins of the blood.

Dr. Solomons said although it was fairly well recognised that hypertrophy of the heart occurred in pregnancy there were some who considered that what appeared to be hypertrophy was really displacement. He would like to know whether Dr. McAllister had noted at what time during pregnancy this hypertrophy commenced, and whether it occurred all through the pregnancy. He also inquired if Dr. McAllister had noted during his observations whether in the pregnant woman there was an increase of pulse-rate when she assumed the erect posture. It appeared to him that everybody accepted the food theory as advanced by Dr Tweedy. He mentioned a case of eclampsia where the patient was well for twenty-four hours, but when milk was given a fatal result ensued.

The President said that regarding heart conditions he had seen a certain amount of trouble, even in ordinary uncomplicated disease of the heart. In cases of toxæmia of pregnancy he considered the blood pressure of great importance. It was of benefit because it helped excretion, but the evil effect of continued high blood pressure on a poisoned heart showed itself after convulsions supervened, when the pulse was the best index of the gravity of the case. When, in spite of treatment for the toxæmia, the blood pressure continued to increase, it was usual to find corresponding evidence in the urine and general condition of the patient that the toxæmia was increasing. In some of these cases the patient had practically no symptom of toxæmia before the onset of convulsions or coma, and in these cases most information was to be derived from the blood pressure and urine. Sometimes the auto-intoxication became extreme, apparently the anterior cerebral cortex being unusually irritant proof, and finally the patient died without convulsions, or after one or a few. If in cases of toxæmia the patient's condition did not rapidly improve, absolute rest, purgatives and nothing but water might be tried for four days. He failed to see how food could produce the toxæmia of pregnancy, but when toxæmia was present, food, and particularly milk, should be withheld until the toxæmia had definitely decreased. By throwing extra work on the injured liver and kidneys food aggravated the disturbances in them.

Dr. McAllister, in replying to the remarks, said that he thought that possibly many patients did not get eclampsia because their blood pressure was high. Dealing with the idea as to whether a toxæmia brought about the kidney condition or *vice versa*—bearing in mind those cases where eclampsia developed very rapidly and the urine was found to have altered tremendously within twenty-four hours, such a rapid change suggested some reflex nervous force interfering with the circulation through the kidney, and in that way with the excretion of certain poisonous substances. He agreed that the rise in blood pressure made one anxious, but the mere fact that the blood pressure was rising would not justify interference. He considered it well to wait until the blood pressure had risen to 190 or 200 mm. of mercury, and that even then one should be guided by the effect of the rise on the patient. He could hardly agree with Dr. Crofton that bacteriological examination was easy on account of the difficulty of getting urine from the bladder without contamination occurring.

ROYAL SOCIETY OF MEDICINE.

Clinical Section.

Meeting held November 13th, 1914.

EXHIBITION OF CLINICAL CASES.

Dr. Alan H. Todd showed a case of probable injury of the crucial ligaments. The patient, a man, æt. 30, had injured his knee during a football match when he was aged 15; he did not remember quite what happened, but he had to be carried off the field. Nothing was very obviously wrong with the joint at the time, and the school doctor sent him into school next day. After walking on it, however, it became very swollen and painful, and he had to remain in bed for ten days. No splint was used. The inflammation subsided.

For some years after this the joint felt weak. Sometimes it would become swollen and distended, and then walking would be painful. Occasionally it would "go out," in which case there would be severe pain. Sometimes it would reduce with an audible click. The joint, moreover, sometimes became locked, but he had never discovered a loose body in it. He had always been able to reduce the knee by slow, forced extension, but had noticed that if he wore an elastic knee-cap this prevented him from "getting the joint back" unless he first removed the cap. At one time, soon after he left school, he used to get attacks of synovitis every few weeks, but lately these had been much less frequent. In the intervals between the attacks he had been able to lead an active, athletic life, playing a good game of golf or tennis daily, though he had always had to avoid turning round too suddenly.

Eleven years ago, when out shooting, he jumped on some muddy gound and twisted the knee badly. It was very painful, and a doctor put it in plaster, fully extended, for three weeks. After this he wore a patella-clamp for a while, but as it failed to prevent the joint "going out," he discarded it.

A slight genu varum slowly developed after the original accident, but lately it had obviously increased in amount. The patient walked with a slight limp, but there was no obvious laxity of the joint; apparently he had unconsciously acquired the habit of keeping the thigh muscles well braced up when walking. When sitting, he could make the leg slide forward on the femoral condyles at will. There was slight limitation of extension and flexion, and some lateral mobility of the joint. Although there was no evidence of free fluid within the joint, or of hypertrophy of the sub-synovial tissue, the circumference of the right knee was ¾ in. greater than that of the left. This seemed to be mainly due to several large osteophytes which had formed round the internal tuberosity of the tibia and the internal condyle of the femur, at their margins. They were well seen in skiagrams.

Dr. W. Essex Wynter and **Sir John Bland-Sutton** showed a case of acholuric jaundice in which splenectomy had been performed. The man, æt. 26, had suffered from jaundice and anæmia all his life, with exacerbations at frequent intervals. His mother, maternal grandfather, an aunt and an uncle on the mother's side were similarly affected. The yellowness of the skin apparently increased during the day, being more marked in the evening than in the morning. He had been worse during the past two years, losing strength and 2½ st. in weight. Physical examination disclosed no abnormality of the thoracic or abdominal viscera, except slight increase in the dullness over the spleen, which could just be felt on deep inspiration. The urine was clear, of a deep red-brown, and had a specific gravity of 1025. There were no abnormal constituents, and both Gerhardt's and the zinc chloride tests for pathological urobilin were negative. Hæmolysis occurred in 0.45 per cent. saline solution, which is about normal. The white cells (5,200) consisted of lymphocytes, 39.4 per cent.; polymorphonuclears, 57.5 per cent.; eosinophiles, 2.5 per cent. The temperature was 99° to 100° F. before operation.

The spleen was removed in July, 1914, several ligatures being applied close to the hilum, but the main artery was left unmolested. There were no complications and the temperature subsequently became normal in the course of ten days.

Wassermann's reaction was reported positive before operation and negative after. The reaction was considered doubtful fourteen weeks later.

The patient left hospital about four weeks later. The red cells were then 1,880,000; white cells 13,000. The resistance of the red cells was greater than normal. A white cell count, eleven days after the operation, showed lymphocytes, 24 per cent.; hyaline cells, 2 per cent.; polymorphonuclears, 73 per cent.; and eosinophiles, 1 per cent.

After about four months the patient had put on 1½ st. and had gained strength and been free from attacks of jaundice. Blood count: Hæmoglobin, 80 per cent.; red corpuscles, 3,700,000 per cubic millimetre; leucocytes, 18,000 per cubic millimetre; neutrophile polymorphonuclears, 51 per cent.; lymphocytes, 33 per cent.; transitional and hyaline cells, 11 per cent.; eosinophile polymorphonuclears, 4 per cent.; mast cells, 1 per cent. A few normoblasts were present, and a considerable number of red corpuscles showed nuclear fragments (Howell-Jolly bodies). Resistance of red corpuscles to hypotonic NaCl solution: a faint trace of lysis, 0.45 per cent. NaCl; marked lysis, 0.3 per cent. NaCl. Two presumably normal bloods tested at the same time showed a trace of lysis with 0.45 per cent. NaCl, and almost complete lysis with 0.4 per cent.; thus the patient's red cells were of more than average resistance. The Wassermann reaction was suspicious, but could not be called positive.

Dr. W. Essex Wynter and **Sir John Bland-Sutton** also showed a case of splenic anæmia after splenectomy. The patient, a boy, æt. 13, had been ailing for six weeks, suffering from lassitude and some enlarged glands. He was sent for treatment by the school doctor, and was thought at first to have Hodgkin's disease, but improved under treatment as an out-patient.

On admission in July, 1914, the boy was seen to be anæmic and thin, but made no definite complaint of pain or discomfort. The thoracic and abdominal viscera appeared normal apart from the spleen, which was much enlarged and extended 4½ in. below the left costal margin and inwards to the middle line. Small, firm glands could be detected in the neck, axillæ, and groins. The thyroid was enlarged, especially the isthmus. Blood count: Red cells, 4,200,000; white cells, 2,600; hæmoglobin, 60 per cent. A differential count showed no disturbance in the ordinary proportion of white cells. Temperature, 99° F. Urine, normal.

Splenectomy was performed in July. There were firm adhesions, separation of which involved considerable bleeding and some injury to the diaphragm. A gauze drain was inserted, but the wound healed readily, and stitches were removed on the eleventh day. The spleen was large and firm. For ten days after operation the temperature rose to 102° and 103° F., and thereafter gradually subsided. Movement of the diaphragm was arrested, especially on the left side, and there was collapse of the lower lobes of the lungs with bronchitis. This gradually cleared, and the patient was convalescent after five weeks.

Then the blood count was as follows:—Red cells, 3,650,000; white, 21,000; polymorphonuclears, 48.5 per cent.; lymphocytes, 21 per cent.; eosinophiles, 5 per cent.; transitional, 25.5 per cent.

In November another blood count showed: Red cells, 4,800,000; white cells, 8,000; hæmoglobin, 62 per cent.

Mr. G. Hely-Hutchinson Almond showed a case of myositis ossificans (juvenile progressive type). The girl, æt. 7, was healthy as a baby. Fifteen months ago, when aged 5½, her right hip began to get stiff, and was followed by the left; the stiffness was intermittent at first, but they had gradually become more fixed. She could only walk about 100 yards, and tilted her pelvis up on both sides with each step. She was thin and her muscles were badly developed. There was a slight list of the spine to the left with corresponding curves and rising of the right shoulder. A small patch of ossification could be felt close to the insertion of the biceps of the left arm, and a patch of hardness near the origin of the biceps of the right. The ilio-tibial band on the left side was ossified from its origin to its insertion. The hamstrings of the left thigh were ossified, a skiagram giving the appearance of a calcified shell enclosing the muscles. There was a lozenge-shaped patch of hardness in the outer belly of the left gastrocnemius. No definite patches of hardness or ossification could be made out in the muscles of the spine or trunk.

Mr. W. J. Midelton showed a case of dermatitis with tuberculous glands in the neck. The patient was a girl, æt. 9. She had been well up to the age of three, but then developed scarlet fever. An eruption occurred after the original rash had died away, and was diagnosed as dermatitis herpetiformis. The dermatitis persisted. She had been free from the dermatitis from the beginning of August to end of September, 1911; then it recurred and persisted. Counter-irritation had been commenced at the end of February, 1912. At that time the pustules, blebs, and scabs were well marked, chiefly on inner aspect of upper third of thighs and spreading on to the abdomen. Within three weeks she became well. Occasional slight relapses of short duration had occurred since. About five years ago some tuberculous glands in the neck were operated on and sinuses persisted for over two years. These eventually healed well, but one scar remained bluish-red and had whitish specks in it suggesting lupus vulgaris. In May, 1913, she had a wound on the right wrist which became septic, but soon healed under treatment. In August, 1913, one or two glands in the neck enlarged and one small abscess formed. This was incised and complete healing took place in a few months. Other glands became inflamed, but no definite abscess occurred. This fact was, in his opinion, significant as showing greatly increased resistance. No sign of the dermatitis had appeared for over eighteen months.

Mr. W. J. Midelton also showed a case of dermatitis herpetiformis and chronic bronchial catarrh in a boy, æt. 9. He had been treated by means of continuous counter-irritation commenced in August, 1912, and carried out once a week ever since. The treatment seemed to check the eruption, and the boy's general health had much improved.

Mr. W. J. Midelton also showed a case of severe neuritis following sepsis in a man, æt. 42. He had also been treated by continuous counter-irritation by multiple puncture and irritants. Applications had been made once a week on various parts of trunk and arms in turn. Recovery had followed. And a case of polyarthritis and severe neuritis in a man, æt. 48, treated with benefit by means of blisters and savin ointment. A blister, 4 in. by 4 in., was applied over the upper dorsal vertebræ and left on twelve hours. This was then removed and a raw surface left. Savin ointment was then applied on lint over the raw place, and left on for twelve hours. By repeating this dressing regularly every twelve hours, a free, purulent discharge was maintained for twelve days. Zinc ointment was then applied, and the raw surface healed rapidly and soundly within three days.

Dr. H. Batty Shaw showed a case of hemihypertrophy in an otherwise healthy girl, aged 11 months.

Mr. W. G. Spencer read a short paper on a case ot retro-peritoneal prolapse of the spleen into the left loin.

HARVEIAN SOCIETY OF LONDON.

Meeting held Thursday, October 22nd, 1914.

The President, Mr. J. Jackson Clarke, in the Chair.

CLINICAL CASES.

The President showed a series of four cases of gunshot fractures incurred in the war. One of these was a comminuted fracture of the humerus caused by a rifle bullet; the remainder were due to shrapnel.

Dr. S. Melville spoke of the difficulties met with in the localisation of bullets by X-rays.

The cases were discussed by Mr. V. Z. Cope, who recounted an example of severe shrapnel wound in the fore-arm. Troublesome hæmorrhage had occurred some time after the injury. The bleeding points were widely distributed all over the wound. Apparently both the radial and ulnar arteries had been severed, and a free anastomosis had resulted.

Dr. Leonard Guthrie showed a case of congenital syphilis of the nervous system in a girl, æt. 9. The knee-jerks were absent, but there was bilateral extensor plantar response. The gait was typical neither of cerebellar nor spinal ataxy. She walked in an awkward, shuffling manner, swaying the trunk from side to side, the feet everted with a tendency to drag them. The pupils reacted neither to light nor accommodation. There were pegged teeth and old disseminated choroiditis. The Wassermann reaction of the blood was positive. Her mental capacity was good.

Sir John Broadbent showed a case of pulmonary stenosis, and also one of aortic regurgitation and stenosis with mitral stenosis.

Dr. W. H. Willcox showed cases of temporosphenoidal tumour (rat-bite fever) in a boy, in which the symptoms were recurrent fever and erythema, neoplasm of the stomach, in which a large stomach tumour has arisen without previous gastric symptoms, and which was thought to be a sarcoma; and pituitary tumour in a man who had the usual evidences of acromegaly.

Dr. Frederick Langmead showed a case of congenital family cholæmia. It was that of a man, æt. 45, whose two daughters, æt. 4 and 6 respectively, suffered from the same complaint. The usual features were present, except increased fragility of the red blood cells. The question of splenectomy was raised.

Dr. G. de Bec Turtle showed a case of patent ductus arteriosus (?) in an adult. A systolic murmur was audible, with greatest intensity in the pulmonary area, but not in the back. Signs of heart failure were present.

ULSTER MEDICAL SOCIETY.

Meeting held November 12th, 1914, in the Medical Institute, Belfast.

The retiring President, Dr. Lawless (Armagh), in the chair.

The incoming President, Dr. H. L. McKisack, subsequently took the chair and delivered an inaugural address on "Oral Sepsis." The President dealt with the condition of the mouth as investigated in 155 cases in the medical wards of the Royal Victoria Hospital, in order to determine what relation, if any, the condition of the mouth had to a variety of diseases commonly attributed to septic teeth and other unhealthy states of he oral cavity. While he admitted that pyorrhœa alveolaris was certainly a factor in the causation of some fairly common affections he did not go the length of some of the most advanced of a recent school, who attributed almost every infection to a septic condition of the mouth.

A vote of thanks to the lecturer was proposed by Professor Sinclair and seconded by Dr. John McCaw, and passed unanimously.

Professor Lindsay showed two cases of disseminated sclerosis, and made some remarks on the differential diagnosis of this condition.

Mr. Fullerton read notes of a case of jejunal ulcer following gastroenterostomy done three years previously with a Murphy's button in the practice of another surgeon. Mr. Fullerton had excised the ulcer and re-established the anastomosis, the patient making a good recovery. He also showed a child in which the lateral abdominal muscles were either quite rudimentary or absent altogether.

Mr. S. T. Irwin showed a specimen and sections from a suspected case of actinomycosis.

CORRESPONDENCE.

FROM OUR SPECIAL CORRESPONDENTS AT HOME.

SCOTLAND.

Compulsory Military Service.

At a meeting of the Scottish Medical Guild held in Edinburgh on November 13th, Dr. John Playfair in the chair, a discussion on "Compulsory Military Service as it appears to the Medical Profession" was initiated by Professor William Russell, who moved a resolution to the effect that compulsory military training was desirable in the interests of the physical and moral welfare of our young men and for our national security, and that the members of the medical profession as represented at that meeting undertook to do what lay in their power towards its attainment. Professor Russell urged this on physical grounds, and on the grounds of the good moral effect of discipline, obedience, and co-operation. Ethically, it would develop a manly and courteous demeanour. Their justification for taking up this question was that they were citizens as well as doctors, and they had seen, and some of them deplored, the pacifist tendency which had blinded the nation to the possibility of a war such as now we were carrying on. Our people had not really awakened to the magnitude of the issues, they had been misguided as to European politics, and had been distracted by domestic policy. The problem of undoing all this had to be faced. According to the census figures there were in Scotland 634,000 men between 19 and 35, and 204,000 between 20 and 24. In England and Wales there were 3,000,000 unmarried men between 18 and 35. The feeling seeemd to be growing that compulsory military training for our youth was to be forced by the people on the consideration of legislators. They felt that the sacrifice should be universal and not left to the flower of our youth.

Dr. Graham Brown, President of the Royal College of Physicians, spoke of the existing system as unfair and undemocratic. The only fair arrangement was that no man who was physically fit should escape service. Compulsion was essential, and the training made a man afterwards a better and more efficient citizen than he was before. They were hesitating about joining because they didn't realise the dangers, and because of their dependents, and apart from these reasons there were shirkers.

Mr. Cotterill outlined a scheme for compulsory training which was considered by experts to be a good one. The idea was to take all the men of 18 and make them the material to work on. Every year 416,000 attained that age, of whom 216,000 would be physically and otherwise eligible. From these must be deducted 66,000 who joined the Navy, Army, or mercantile marine, leaving 156,000. In the first year it was proposed to give four to six months' training, and in the next three years two or three weeks' training. Altogether there would every year be 400,000 men training, and the cost would be about four million pounds a year. Our Territorial Army cost nearly that, and was a very small force. Compulsory training would mean the physical regeneration of many of our town-bred population. After speeches by Prof. Caird, Dr. Codell, Dr. Brock, and Dr. Greene, the resolution was unanimously adopted.

Queen Mary's and Princess Christian's Hospital, South Queensferry.

This new naval and military hospital, which has just been completed, was visited on the 10th by H.R.H. Princess Christian. The hospital was the gift of a generous anonymous donor at the beginning of the war, and is situated on the Marquis of Linlithgow's land, close to the old hospital at Butlaw. Up to the present the whole cost of building, equipping, staffing, and running the hospital has been borne by the giver, and will probably amount to over £10,000. Very soon, however, the establishment will be taken over by the Admiralty. The main building is 250 feet long, consisting of a central administrative block and four 25-bed wards radiating from this centre. There is a first-rate operating theatre and X-ray apparatus. It is stated that the donor of the hospital also erected a hospital in South Africa at the time of the Boer War. H.R.H. Princess Christian arrived in the forenoon from Hopetoun House, where she was the guest of Lord and Lady Linlithgow. Sir Arthur May, Director-General of Naval Hospitals, accompanied the party. The old naval hospital at Butlaw was also visited, and a visit was paid to Lady Beatty on board the yacht *Sheela*, which is equipped as a hospital ship. In the afternoon, Princess Christian, accompanied by the Marchioness of Linlithgow, visited Dalmeny House, the residence of Lord Rosebery, which has been converted into a hospital. After the various members of the staff had been presented, Her Royal Highness made a tour of the wards and spoke to the patients, of whom there are about eighty in the hospital.

Countess of Eglinton's Hospital.

A building on Irvine Moor, for many years used as the officers' mess of the 4th Battalion Argyll and Sutherland Highlanders, is being opened by the Countess of Eglinton for wounded soldiers. Everything is now in readines for the reception of patients. The hospital is built of brick on an excellent site, with a fine sandy subsoil. The Countess with Mrs. Erskine, commandant of the Irvine Detachment of the V.A.D ; Nurse Crawford, the matron ; Dr. James Wilson, and a number of young ladies of the district have been actively engaged in the preparation of the building for its special use.

Medical Officers of Health and Billeting.

The Scottish Local Government Board have forwarded to clerks to county councils and district committees, and to town clerks and medical officers of health, for the information of local authorities, a copy of directions issued by the Army Council to Home Commands directing that medical officers of health shall be informed of any proposed billeting in their districts, with a view to obtaining their expert advice and co-operation in billeting the incoming troops under the best sanitary conditions available. Medical officers of health are also to be consulted and their visits encouraged wherever camps are formed and maintained. On September 10th the Board issued to all medical officers of health a circular-letter setting out the lines of action on which medical officers of health should co-operate with the medical sanitary services.

St. Andrews and Louvain Universities.

The Senatus Academicus of the University of St. Andrews has sent an address to the Rector and other authorities of the University of Louvain, expressing their sympathy with that university in the losses it has recently sustained and their appreciation of the excellent work done by the University of Louvain. The University Court has also expressed their sympathy with the University of Louvain, and has offered, so far as lies in its power, to assist the authorities of Louvain in restoring their University to activity. The Court will send to Louvain a fresh set of the St. Andrews Unversity publications already issued and as published, and will also contribute towards the replenishing of the Louvain library by giving to the University of Louvain such duplicates as it may be able to part with from the library at St. Andrews.

The Cocos Islands.

These islands, where the *Emden* was destroyed, were visited in December last by Dr. J. R. McVail, son of Sir David McVail, Glasgow. Dr. McVail paid an official visit to them as medical officer of Tan Tock Seng's Hospital, Singapore. The three principal islands of the Cocos group are named, Home Island, Direction Island and West Island. The only other one, which is inhabited, is named Horsburgh. Dr. Olierhead, medical officer of the Eastern Extension Telegraph Company, resides on Direction Island. The population of this island consisted, at the time of Dr. McVail's visit, of 28 Europeans, 6 Malays, 30 Chinamen, and 5 Tamils. On the other islands the total population was 609, consisting of 5 Europeans, 569 Cocos Islanders, and 35 Bantamese. On Home Island there is now a small oil mill intended chiefly for the extraction of castor oil, but it can also be used for the extraction of oil from copra. Labour is chiefly employed in clearing jungle and planting cocoanut palms and castor oil plants. The majority of deaths on the islands in 1913 were associated with infancy and childbirth, as was to be expected from an uneducated community. The temperature is very equable, the highest record in the shade being 90° F. and the lowest 71° F.

War Items.

The second unit of the Scottish Section of the British Red Cross Hospital at Rouen will leave Glasgow this week. Miss Duff, who was trained at Westminster Hospital, London, is to be in charge of the nurses. Dr. Cullen, St. Boswell's, has been appointed head of a Voluntary Aid Detachment under the Red Cross Society, and proceeds to the north of France this week.

LETTERS TO THE EDITOR.

[We do not hold ourselves responsible for the opinions expressed by our Correspondents.]

ÆSCULAPIUS AT CYRENE.

To the Editor of The Medical Press and Circular.

Sir,—In your issue of the 11th inst., "Inquirer" speaks of a tablet in his possession inscribed (I presume in Latin) "Temple of Æsculapius, Cyrene." He thinks the god referred to should be Apollo. So important and ancient a city as Cyrene would, in my opinion, almost certainly have a temple of Asklepios ; if the name is spelt in the inscription in the later Roman manner as "Æsculapius," the tablet must date only from Roman times. I am not aware that any such temple has been discovered, but the destruction of ancient buildings on the site of Cyrene is, and has long been, so complete that we could not expect its discovery.

I am, Sir, yours truly,
Richard Caton.

Livingstone Drive South, Liverpool,
November 12th, 1914.

ROYAL COLLEGE OF SURGEONS IN IRELAND: STUDENTS AND THEIR COMRADES AT THE FRONT.

To the Editor of The Medical Press and Circular.

Sir,—May I, through the medium of your paper, mention that the students of the Schools of Surgery of the Royal College of Surgeons in Ireland are sending cigarettes, etc., to the Students, Licentiates and Fellows of the College who are at present serving with His Majesty's Navy and Expeditionary Forces. As the students are most anxious that none of the "old boys" should be forgotten, they ask your readers to send the names of such students, Licentiates and Fellows to the Registrar of the College.

I am, Sir, yours truly,
Alfred Miller, Hon. Treas.

ALCOHOL AND THE WAR.

To the Editor of The Medical Press and Circular.

Sir,—My attention has been called by an officer to the leading article in the Medical Press and Circular under the above heading in the issue of September 23rd, page 320, in which the following statement occurs:—"Not only has alcohol been strictly relegated to a subordinate position among medical comforts and necessaries, but its disuse has been urged upon the troops by Lord Kitchener." Is this quite accurate? What authority has the writer for saying Lord Kitchener has urged the disuse of alcohol upon troops? My careful reading of Lord Kitchener's expression of opinion upon this subject is the same as all true temperance reformers, that he deplores the abuse of alcohol and urges the troops to follow true temperance principles and drink alcoholic liquors in strict moderation.

Lord Kitchener has also expressed an opinion that all patriotic men and women will endorse, that it is the reverse of patriotism to give recruits drink of any kind when they have bad sufficient.

I sincerely trust alcohol will not be relegated to a strictly subordinate position after the experiments by Dr. H. Lyon Smith, quoted in the *Lancet*, October 10th, p. 916, where he shows what a valuable prophylactic alcohol is, and how a small dose does set up phagocytic action and prevents sepsis in the wounded.

I am, Sir, yours truly,
Thomas Dutton, M.D.

25 New Cavendish Street,
Harley Street, W.
November 12th, 1914.

THE STUDENT'S TRAINING.

To the Editor of The Medical Press and Circular.

Sir,—"Observer," who writes to you on "The Student's Training" (November 4th), appears to be a product of some such system of education as that he recommends. His letter is clearly a mass of futility and facetiousness, but which is the essence and which the incident I know not. "Observer" may mean what he says, and have added lumbering irony to suggestion, or he may have attempted to write a bright and chatty epistle to you, Sir, and have found this alleged idea around which to twine the inky asphodels of his herbaceous intellect. Either way the result is deplorable.

For ages people as short-sighted and as long-winded as "Observer" have plaintively asked, "Why do we walk before we run? Why do we creep at all?" and have refused to be comforted. Those people would not be satisfied with anything but a finished talent for aviation direct from the cradle. Why waste time on chemistry and physics instead of learning about X-rays and radium? is the complaint of their kind.

The truth, of course, is so ridiculously obvious that it seems waste of ink to state it, but even the obvious fails to pierce their sense-proof crania. They cannot understand the simple fact that if a man is to do a thing well he must know what he is doing. They would let a handle-pulling owner-driver, ignorant even of Otto's cycle, take his car to bits and expect him to put it together again just because he could drive the thing along a road. They think if a man has been shown which switches to pull in an X-ray apparatus, even though he knows nothing about induced currents nor anything else, yet he is a full, perfect and sufficient specialist and the ultimate end of all knowledge, whereas he merely represents the penny in an unusually complicated slot machine.

It is true, of course, that we forget a great deal of what we have learnt. It is the only thing to do with much of the information presented to us. We must not absorb knowledge, but assimilate it. All the little chemical facts which "Observer" ponderously jeers at are but temporary steps, to be knocked away as we advance. We may forget how to make KI from I, and I from KI, but we have learned something about the interaction of elements that we can never lose. The facts go, but the principles remain. "Observer" is the true reactionary—the *soi disant* "practical man"; he can see no further than his nose. If his system were adopted there would be more like him than there are already. He is a horrible example of his own theory. *Absit omen!*

I am, Sir, yours truly,
Tom A. Hawke, M.D.

Dublin.

THE HOUSE SURGEON DIFFICULTY.

To the Editor of The Medical Press and Circular.

Sir,—Your correspondent "D. M." does a public service in calling attention to the inadequate pay given to house surgeons. The evil is not, however, as he suggests, confined to Dublin.

I know that the usual defence made is that such appointments are in fact a prolonged pupillage, and that the advantages gained in the shape of experience are sufficient to attract suitable candidates without the addition of remunerative salaries. This defence fails from two points of view. The young licentiate who has spent five years in learning his profession has a right to expect to be able to live on his professional earnings from the day he receives his diploma. From the point of view of the hospital authorities the bargain is even worse. By offering inadequate salaries to house surgeons the hospital authorities limit their field of choice to candidates possessed of private means. There is no reason to suppose that such candidates are superior professionally to their less well-to-do brethren.

I am, Sir, yours truly,
M.D.

THE NEW STATESMAN ON THE PATENT MEDICINE REPORT.

To the Editor of The Medical Press and Circular.

Sir,—*The New Statesman* is not known to the crowd, but, as you are aware, it wields great influence among large sections of the classes who have valid claims to the titles intellectual and cultivated. It was therefore greatly to my satisfaction that I read in the issue of October 31st an article on the above subject. It is a most masterly, lucid and complete *résumé* and criticism of the Report of the Select Committee. It demonstrates once more the nefarious character of the trade in secret remedies, and powerfully supports the demand for immediate legislation. In numerous passages it refers in caustic terms to the share newspapers are taking in encouraging for their own profit a fraudulent and cruel trade. I have written to the editor, and my letter appears in the issue of to-day, November 14th, thanking him on behalf of those who are working with me, and for myself, for the support he has afforded, and appealing to him to take part in a movement to cleanse journalism from the foul blot that now besmears it. The Editor has allowed me to point out in my letter that with the exception of a considerable, albeit relatively small, minority, of which the *Spectator* and *The New Statesman* are the most distinguished leaders, the great mass of the newspaper and periodical press are virtually suborned by quackery. Although directly challenged by the Select Committee, very few periodicals or papers have taken any notice of its Report, whilst the conduct of many leading journals has been worse than ever since its issue

Some of the most prominent papers have had their columns crowded with fraudulent advertisements, including those of the practising quacks named and stigmatised in the Report as "swindlers and fakers." This report forms a gross scandal, and means must be found to expose it. This is a task which can be worked at until the time comes for medical law reform to take its place as one of the issues of practical politics which are now necessarily put aside during the preoccupation of Parliament by the war.

I am, Sir, yours truly,
Henry Sewill.

The Old Rosery,
Earlswood Common,
November 14th, 1914.

THE ASYLUM FATALITY.

To the Editor of The Medical Press and Circular.

Sir,—The moral of the amylene hydrate fatality is that no medical officer should dispense in a public institution unless he be also an apothecary. As the s.g. of amylene hydrate is .820, a trained dispenser should be able to distinguish a strong from a dilute solution with his eyes shut.

Von Moring praised this drug as an hypnotic, and it was stated to produce sleep without ill effect. This view must now be modified, but it is to be hoped that no embryo Crippen has noted the pathologist's declaration that he might never have detected the cause of death if he did not know what had been taken.

I am, Sir, yours truly,
J. C. McWalter.

Dublin,
November 14th, 1914.

OBITUARY.

MR. C. B. LOCKWOOD.

We regret to announce the death of Mr. Charles Barrett Lockwood, F.R.C.S., Consulting Surgeon to St. Bartholomew's Hospital, which took place at his residence, 19 Upper Berkeley Street, W., on November 8th, aged 58. Born at Stockton-on-Tees, Mr. Lockwood was educated at Bramham School and St. Bartholomew's Hospital. He qualified as M.R.C.S. in 1878, becoming F.R.C.S. in 1881. Mr. Lockwood was Hunterian Professor at the Royal College of Surgeons of England in 1887-88-89, and 1895. He was a recognised authority on hernia and diseases of the testicle, and he had contributed numerous articles on appendicitis, erysipelas, tetanus, and pyæmia to various medical encyclopædic works. At one time Mr. Lockwood was Surgeon to the Great Northern Central Hospital, and he was a member of the Council of the Royal College of Surgeons. He had held the office of President of the Medical, Harveian and Anatomical Societies of London. His untimely death was due to his having contracted septicæmia after pricking his finger during an operation for appendicitis. He was laid to rest in the peaceful churchyard of Instow, Devon, and a memorial service was held at the church of St. Bartholomew's, London, attended by numerous representatives of the staff of the hospital he had served so faithfully.

CAPTAIN T. PHILLIPS, R.A.M.C.

The death of Tom Phillips from wounds received at the seat of war will come as a painful shock to many old Queen's and Royal Victoria Hospital men, with whom he was a general favourite. From the meagre details to hand it would appear that the deceased was in good health and spirits up till the end of October, as seen from his letters, the last of which was dated October 30th. He is reported to have died on November 4th in No. 4 Clearing Hospital. Captain Phillips was 34 years of age, and was the son of the late Rev. J. G. Phillips, formerly of Damascus, and Mrs. Phillips, of Mountcharles, Belfast. He received his early education at Trent College, Nottingham, and later in Campbell College, Belfast. He was a distinguished student of Queen's College, Belfast, and obtained his medical degrees in the Royal University of Ireland in 1906. After taking a voyage to India he was appointed House Surgeon to the Royal Victoria Hospital, Belfast, where his valuable qualities, both professional and social, were quickly recognised by the staff and his resident colleagues. He determined to enter the Army, and he obtained first place at the examination for commissions in the R.A.M.C. Most of his time had been spent in India, but he was home on furlough at the outbreak of the war and was keen to get to the front. His desire was soon satisfied, but after a few weeks of most strenuous and exciting work in the thick of the fighting he fell. During the few hours permitted to him for the necessary rest after his arduous labours among the wounded he used to find time to write most interesting accounts of his experiences to his mother. In these letters no word of complaint ever escaped him, but he preserved a cheerful spirit under the most trying ordeals which he had obviously been through. Through his death the Army has lost an excellent officer and the medical profession one of its best and most promising members. The greatest sympathy is felt for his mother and brothers in their bereavement.

CAPTAIN C. T. CONYNGHAM, R.A.M.C.

We record with regret the death in action of Capt. Cecil T. Conyngham, M.B.Dub., R.A.M.C., which occurred recently in East Africa. Capt. Conyngham was a native of Dublin, where he received his education, first at St. Andrew's College, and later at Trinity College. As an undergraduate he was an athlete of distinction, as swimmer, as sprinter, and as football player. He received his medical degree in 1906, and shortly afterward obtained a commission in the Royal Army Medical Corps. He was in India when the war broke out, and only left Bombay for East Africa on October 16th. Conyngham was an officer of first-rate ability, and his loss will be deeply regretted both among his comrades in the service and among his old college friends.

REVIEWS OF BOOKS.

INTENSIVE TREATMENT OF SYPHILIS. (a)

The perennial plague of syphilis, which still continues to make the innocents of the third and fourth generation suffer for the lapses of their progenitors, remains a source of trial for the science and ingenuity of the clinician and the sanitarian, to say nothing of the moralist. And, as in so many other cases, we find the quasi-scientific clinicians returning, again and again, after invasions crowned with disappointment—although not absolutely unalloyed with profit—to the old-time therapeutic agents which were discovered—often accidentally—by the naked eye. The author himself takes care to place clearly before his reader the connotation of his favourite therapeusis: "By Aachen methods I mean the inunction of a mercurial ointment by the bare hand of skilled rubbers, under proper medical supervision, and in addition the use of sulphur water internally and externally, as administered." In the days of the prevalence of the wide-spread epidemic which so significantly followed the discovery of America, the prevailing system of pathology taught that the deficiency or "corruption," however produced, of some one or more of the three elements which collectively constituted the whole human organism, was the actual cause of every variety of disease—as distinguished from mechanical lesion: effervencence of the salt, combustion of the sulphur, or coagulation of the mercury. The obvious clinical indication accordingly was to supply the defect by introduction from without. Our author is, of course, utterly opposed to the salvarsan creed, and some of his statements are productive of tonitruous thrill: "This agent has caused death from hæmorrhagic encephalitis shortly after injection in some cases of non-syphilitic disease, a fact which must invalidate the endotoxin theory of Ehrlich, Wechselmann, and others." Even the slender hopefulness of the following sentence conveys comparatively flabby encouragement: "We may assume, however, that with greater care in the selection of patients, the adjustment of dose and the preparation of the solution, likelihood of this unfortunate occurrence will be diminished." Our author himself does not discard salvarsan, but prefers always to use it as an adjuvant in carrying out his Aachen methods, with which combination he appears to have obtained very excellent results. We recommend his booklet, which is produced with the well-known good taste of his publishers, to the consideration of every practising surgeon.

(a) "The Intensive Treatment of Syphilis and Locomotor Ataxia by Aachen Methods." By Reginald Hayes, M.R.C.S., etc. London: Baillière, Tindall and Cox. 1914.

MECHANO-THERAPEUTICS. (*a*)

The object of the author of this booklet has been, as he tells us, to break down the barrier now existing "between a large number of men in general practice and the application of mechano-therapeutics"—a regrettable state of things which he thinks is "largely due to the fact that this subject is not compulsory in the curriculum, and is altogether neglected by the medical schools. To this neglect he attributes, and we incline to think quite accurately, a fertile opportunity for the successful inroads of the quack.

Our author has evidently studied his subject extensively, in its applications to the various conditions which can be benefited by the adoption of this insufficiently recognised therapeutic agent. He considers the range of this new domain wide enough to make a division of included disorders into the comprehensively professional one of "medical, surgical and special." For its successful use we are told that: "A couch and a pair of skilful hands are all that is really indispensable. . . . We often prefer our own fingers to the most wonderful instruments." It is also encouraging to be assured that those who visit Sweden, the motherland of gymnastics and massage, will be surprised at the simplicity of most of the mechano-therapeutic institutes of Stockholm.

After comprehension of the first general principles, the great consecutive consideration is a grasp of the "Indications," which are made very largely inclusive. On the whole: injuries, such as fractures and sprains, deformities, simple and chronic inflammatory conditions, and constitutional diseases, are those in which mechano-therapy will be found useful, and in most cases more helpful than any of our drugs. The use of drugs, however, is never incompatible with massage, and the two can be safely combined." This very extensive grouping might lead the reader to suspect that he was going to be entertained with an exhaustive dissertation on the virtues of a twentieth century panacea. But no, our author's summary of contra-indications is fairly full and thoroughly judicious. We are told that: "No acute inflammatory conditions and no tumours should ever be directly treated by massage." The group of "tumours" is made to include all the types of granulomata, such as syphilis, tuberculosis, and actinomycosis, as well as the "true forms of new growths," benign as well as malignant. Hæmophilia, leukæmia, and aneurysm also belong to this category."

The first group of lesions here dealt with is that of fractures. The familiar Colles's fracture is, of course, one of the first to receive attention. A very remarkable result of the author's mode of treatment of misused fracture at the lower end of the fore-arm is illustrated in Figs. 5 and 6. From fracture of the lower end of the radius to the paralytic effects of acute anterior poliomyelitis is a very long range indeed; yet our author claims results at every intermediate stage. We consider that the methods of massage are among the therapeutic factors which have come to stay, and believe that their genuine usefulness will continue to be recognised after that of most coal-tar drugs, for instance, has hopelessly faded out beyond recognition.

MEDICAL ELECTRICITY. (*a*)

We have read this book with the greatest interest and pleasure, for to us it seems the most satisfactory account of practical medical electricity published. Dr. Norman is to be congratulated on having put all that is essential or desirable for the beginner into 223 pages of admirable terse English. His achievement is due first of all to a sustained endeavour to make the beginner think in volts, ampères and ohms. He realises very clearly that all *practical* work still rests on very simple but important principles that must be fully understood. The book is divided into two parts, the second of which is set apart for X-ray work, while the first consists of a description of all other electrical medical apparatus. We have read both, and have to admit that the book is wholly admirable. Our only regret is that it is so short, and we can but hope that the pen that has written so good a handbook will soon produce a text-book for the edification of the specialist.

MANUAL ON EYE, NOSE, THROAT AND EAR. (*b*)

This manual includes a survey, necessarily condensed, of the main features of the specialties, of the eye, nose, throat and ear. It is exceptional in this country, and combines all the special departments named within the sphere of practice of a specialist. But as we gather the author has claims for this combination, judging from his former hospital appointments, we may assume that he has a good foundation for the treatise he has produced. The eye section forms the bulk of the volume, more than half of its pages being devoted to this subject, while nine out of the twelve coloured plates refer to diseases of the eye. All these coloured illustrations are good, and the same may be said of the other drawings, freely interspersed, in the text. This book may prove useful to practitioners for reference purposes, owing to the ground it covers. But we doubt whether it would satisfy the examinational requirements of the student. In the text we read "tubercular" instead of tuberculous, "midriatic" instead of the usual mydriatic, having the same origin as mydriasis, and "insidous," a word we have never heard of, and $Chel_3$ in place of the familiar $CHCl_3$, but the text is generally free from misprints.

TROPICAL DISEASES OF ASIA AND AFRICA. (*c*)

To write a text-book on tropical diseases in these days is a matter of no little difficulty. The knowledge of the subject is undergoing such rapidity of expansion that the task is, we may believe, almost a hopeless one save to the teaching expert whose opportunities enable him to keep abreast with the continual scientific advance. Apparently the aim, however, of the author of this book has been not so much that of compiling a text-book on tropical diseases as of mostly to record his experience of the subject gained by practice in a tropical climate. But even judged by this standard the author has laid himself open to criticism, and to an unfavourable comparison of his work with the several excellent treatises on tropical medicine which have gained the recognition of text-books. But while allowing the author full measure for his effort to produce a practical work, "leaving aside disputed points or theories which are still *sub judice*," and while also believing that his work may be found of use by practitioners in tropical climates, the fact remains that it fails to reach a standard which can be regarded as meeting the requirements of a text-book.

(*a*) "Mechano-Therapeutics in General Practice." By G. de Swietochowski, M.D., M.R.C.S. With 31 illustrations. London: H. K. Lewis. 1914.

(*a*) "Practical Medical Electricity: A Handbook for House Surgeons and Practitioners." By Alfred C. Norman, M.D.Edin. Pp. 223. London: The Scientific Press, Ltd. Price 5s. net.

(*b*) "Eye, Nose, Throat and Ear. A Manual for Students and Practitioners." By James Forest, M.D.Ch.Edin., with coloured and plain illustrations. London: Henry Kimpton, 1914.

(*c*) "A Handbook of the Tropical Diseases of Asia and Africa." By H. C. Lambart, M.A., M.D., and L.R.C.P. and S.Edin., L.R.F.P. and S. Glas. London: Charles Griffin and Co., Ltd., 1914.

Medical News in Brief.

Royal College of Surgeons of England.

At the Primary Examination for the Fellowship in Anatomy and Physiology held by the Royal College of Surgeons, England, on the 4th, 5th, 10th, and 11th inst., fifty-seven candidates presented themselves, of whom fifteen were approved and forty-two were rejected. Among the successful candidates were two ladies—Miss Bostock and Miss Ingleby, both of the London School of Medicine for Women. The following is a list of the successful candidates:—Jugalkishor Adhya, Marian N. Bostock, Leonard S. Debenham, Spencer G. Dunn, Benjamin T. Edye, Arthur Norman Hooper, John B. Hume, Helen Ingleby, Harold G. V. Mence, Arthur Eisdell Moore, Sydney D. Rhind, Tribhovandas Oghaddes Shah, James R. White, David Whyte, and Graham S. Wilson.

City of Dublin Branch of the British Red Cross Society.

A meeting took place last week in the Lecture Theatre of the Royal Dublin Society, when his Excellency the Lord Lieutenant distributed the Department's certificates of proficiency to the successful students in the first aid and emergency classes held under the auspices of the Women's National Health Association and the Department of Agriculture and Technical Instruction. The Lord Mayor of Dublin presided. After the distribution of certificates, a branch of the British Red Cross Society for the City of Dublin was constituted and officers and committees elected.

St. Luke's International Hospital at Tokio.

It is announced that the Emperor of Japan has made a donation of 100,000 yen (£10,000) towards the foundation of St. Luke's International Hospital at Tokio, promoted by the Episcopal Mission, which is represented in Japan by Dr. Rudolf Teusler. The movement has already received substantial support in America.

Army Medical Service.

G. S. Buchanan, M.D., is granted temporarily hon. rank of Lieut.-Col. (November 17th).

To be temporary Capts.—E. K. Martin, F.R.C.S., A. E. Johnson, M.B., F.R.C.S., R. Davies-Colley, F.R.C.S. (November 1st). To be temporary Lieuts.—J. W. Richardson, F.R.C.S.Edin., W. N. Alexander, A. F. Wright, M.B., H. A. Cutler, M.B., A. G. Wilkinson, M.B., H. Y. Riddell, M.B., E. F. Palgrave, R. P. Rosser, M.B., C. E. H. Smith, D. J. M. Legge, F.R.C.S.Edin., W. R. A. Coates, R. J. Rogers, F.R.C.S. Edin., H. L. Hatch, M.B., S. B. Walsh, M.D., J. K. Clarke, M.B., G. E. Vilvandré, P. Drummond, M.B., D. J. Evans, M.B., W. A. L. Dunlop, M.B. (November 1st); C. L. Graham, M.B., C. D. Pye-Smith, M.B., F.R.C.S., H. Mowatt, M.D., W. A. Hislop, M.B., J. N. Glaister, J. Alexander, M.B., F. K. Kerr, M.B., A. G. Gilchrist, M.B., T. B. Johnstone, C. M. Bernays, C. A. Flintoff, R. S. Renton, M.D., L. Cairns, M.D., R. B. Llewellyn, M.B., E. D. Parsons, R. Crothers, F.R.C.S.Edin., A. Leeming, M.B., P. H. Robertson, M.B., P. G. Lock, L. W. Pole, M.B., W. Tregenza, R. Thomson, M.B. (November 2nd).

Qmr. and Hon. Capt. H. Spackman to be Hon. Major (October 4th).

To be temporary Lieuts.—G. L. Grant (September 30th); T. R. Snelling, R. Charles, F.R.C.S.I., H. C. C. Rennie, M.B., C. J. Edgar, M.D. (October 22nd); A. de W. Snowden, M.D. (October 23rd); R. R. Wettenhall, M.B., M. J. Kelly, A. S. Blackwell, M.D., F.R.C.S., E. W. Griffith, A. G. Leitch, D. N. Knox, M.B., W. W. Mackarell, M.D., J. B. Orr, M.B., J. G. Duncanson, M.B., M. P. Scanlon, M.B., E. A. Tozer, M.B. (October 24th); R. W. Mitchell, M.D., F.R.C.S., C. McM. Wilson, M.D. (October 25th); J. MacInnes, M.B. (October 26th); W. Meade (October 27th); T. H. Agnew, M. W. Littlewood, M.B. (October 28th); D. W. Woodruff, R. I. Brown (October 29th); J. B. Wood, M.B. (October 31st); O. S. Maunsell (November 3rd).

Indian Medical Service.

Lieuts. to be Capts.—Dated July 29, 1914: Percival S. Connellan, John A. Sinton, M.B., Eric E. Doyle, Cyril M. Plumtre, Archibald W. Duncan, Henry L. Barker, M.D., and Edward A. Penny, M.B.

MEDICAL WAR ITEMS.

Lieut. I. H. Jones, M.B., R.A.M.C., contributes an account of his doings at the front to the *North Wales Chronicle* as follows:—"War is a terrible thing, more inhuman than I ever dreamt, but also, I think, one of the best, if the most drastic, humanising agents I have met with in my short life. Caste, creed and rank simply become obliterated, and the best side of everyone's nature often becomes evident. . . . . Our men were attacking a village near Armentières, when the white flag appeared. Our men advanced and six were promptly shot. They then charged 150 Germans. All the Germans who were left were wounded prisoners, whom I saw and some of whom I treated, and their number was one officer and ten men! . . . . A great many of our wounded are not seriously damaged, and most have shrapnel wounds. We deal in hundreds, and a great number will soon return to the firing line. The very serious we keep, and also those who will be fit to fight in three weeks' time. All the others are moved in motor ambulances to hospital ships and conveyed to England. We are working hard, feeding well, sleeping soundly, and all are in perfect physical condition. . . . I am happy in the humble performance of my little best for the poor chaps who are making the name 'British' resound throughout the world as representing pluck, dogged perseverance, thoroughness, and all that is desirable in the present-day soldier. 'Tommy' is a remarkable fellow, and my tribute to the Scotch soldier is doubly deep. He smokes a Gold Flake cigarette while you dress the most painful wounds, and smilingly agrees when you suggest that it must hurt. He would love to go home, but prefers to go back to his pals in the trenches, and the predominant feature of his characteristics is that he hates the German 'as the devil hates holy water.' I only know one person who loathes the German more, and that is the Belgian. When you mention the word German to him he has visions of ruined villages, murdered villagers, and outraged women, and his eyes flash. The debt owed by civilisation to the Belgian people can never be repaid, and no kindness is too great to bestow upon the unfortunate people whose homes have been destroyed for the protection of the interests of England, France and America."

Dr. William Parry, formerly of the Royal Southern Hospital, Liverpool, relates his experiences while acting as anæsthetist to the principal surgeon of the No. 14 General Hospital of the Expeditionary Force in the *Liverpool Daily Courier* as follows:—"Arrived at our destination," he says, "and looking around for a building for our hospital, we found a vacant hotel and a casino full of furniture and gambling tables. At 10.30 in the morning we had orders to prepare 300 beds by 3.30 in the afternoon. By noon the wounded were arriving, and by next morning we had accommodated 550 wounded in a perfect hospital for our work. Although some of the shrapnel wounds are terrible, the men are very plucky, and stand tons of pain without a murmur. Much to our surprise, the men are in the pink of condition, and are an excellent testimonial to the feeding which they get in the firing line. . . . By this you will have realised the tremendous size of the war, and how important it is that every able-bodied man should join as soon as he possibly can."

Stover House, the residence of Major and Mrs.

Harold St. Maur, in Mid Devon, has been placed at the disposal of the War Office as a hospital for wounded soldiers, and with the arrival of a further contingent recently the three wards have been filled.

The business men of Liverpool have decided to maintain a base hospital in France, and over £7,000 was subscribed at a meeting presided over by Lord Derby. The hospital, which will have 200 beds, will cost £13,000 to equip and £1,500 a month to maintain.

In addition to the temporary hospital established at Fishmongers' Hall, the City branch of the British Red Cross Society has decided, if funds admit, to start another of 100 beds. A large building in Upper Thames Street, just behind Fishmongers' Hall, has been placed at their disposal by the Pearl Assurance Company

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Lord and Lady Aberconway have converted their house in Belgrave Square into a hospital for the wounded, and have placed Hilders, their residence at Haslemere, at the disposal of the county association as a convalescent home for Territorials.

It is stated that near Dixmude a British field hospital with a hundred men was captured by the Germans, and the heroic surgeons who were in charge refused to leave the sick and wounded and demanded to be imprisoned with them.

Among the nine first recipients of the coveted V.C. recently bestowed by H.M. the King upon members of the Expeditionary Force is the name of Captain Harry Sherwood Ranken, R.A.M.C., "For tending wounded in the trenches under rifle and shrapnel fire at Hautvesnes on September 19th, and September 20th, continuing to attend to wounded after his thigh and leg had been shattered." (Captain Ranken has since died of his wounds.)

NOTICES TO CORRESPONDENTS, &c.

☞ CORRESPONDENTS requiring a reply in this column are particularly requested to make use of a *Distinctive Signature* or *Initial*, and to avoid the practice of signing themselves "Reader," "Subscriber," "Old Subscriber," etc. Much confusion will be spared by attention to this rule.

SUBSCRIPTIONS.

SUBSCRIPTIONS may commence at any date, but the two volumes each year begin on January 1st and July 1st respectively. Terms per annum, 21s; post free at home or abroad.

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FOR ONE INSERTION:—Whole Page, £5; Half Page, £2 10s.; Quarter Page, £1 5s.; One-eighth, 12s. 6d.

The following reductions are made for a series:—Whole Page, 13 insertions at £3 10s.; 26 at £3 3s.; 52 insertions at £3, and pro rata for smaller spaces.

Small announcements of Practices, Assistancies, Vacancies, Books, etc.—Seven lines or under (70 words), 4s. 6d. per insertion: 6d. per line beyond.

CONTRIBUTORS are kindly requested to send their communications, if resident in England or the Colonies, to the Editor at the London office, 8, Henrietta Street, Strand; if resident in Ireland to the Dublin office, in order to save time in reforwarding from office to office. When sending subscriptions the same rule applies as to office; these should be addressed to the Publisher.

ORIGINAL ARTICLES OR LETTERS intended for publication should be written on one side of the paper only and must be authenticated with the name and address of the writer, not necessarily for publication, but as evidence of identity.

REPRINTS.—Reprints of articles appearing in this JOURNAL can be had at a reduced rate, providing authors give notice to the publisher or printer before the type has been distributed. This should be done when returning proofs.

STUDENT (Leeds).—A qualification, both in medicine and surgery, is required by the War Office of candidates for medical service in the Army. Academic distinctions can be left till the war is over.

AN OBSCURE EXPLANATION!

GUN DEAFNESS.—The injuries are due to the sudden condensation or rarefaction of the *error of the external auditory meatus.* —*Journ. Amer. Med. Assoc.*, October 24th, 1914, p. 1477.

T. D. BAILEY.—The work is now out of print. A new edition is in preparation, and will probably be issued at the beginning of the new year.

M.R.C.S., L.D.S.—Chinosol, a coal tar product, is chemically known as potassium oxyquinotine sulphonate. A solution of 1 in 4,000 would be one of useful strength.

NATIONAL CHRISTMAS CARD, 1914.

IN aid of the Prince of Wales's National Relief Fund a National Christmas card has been produced and published by special request by Messrs. Raphael Tuck and Sons, Ltd., which will be on sale to the public at 6d. from the 25th inst. The card is elegantly designed and reproduced in colours in the well-known "Oilette" process as well as in photogravure, illustrating the defenders of the Empire by sea, land and air, and is worthy of the high reputation of the firm by whom it is issued. Impressed with a special stamp, this card should be in strong demand this year and there is little doubt that it will prove a most striking memento of the most historic Christmastide of our time.

DR. J. D. OWEN.—The rumour, we understand, is without foundation. The same standard is required of the candidates as prevailed previously to the war.

Meetings of the Societies, Lectures, &c.

WEDNESDAY, NOVEMBER 18TH.

ROYAL SOCIETY OF MEDICINE (SECTION OF THE HISTORY OF MEDICINE) (1 Wimpole Street, W.).—5 p.m.: Papers: Dr. Raymond Crawfurd: Oliver Goldsmith and Medicine Mr. Macleod Yearsley: Autograph of Joseph Ignace Guillotin, with Note on Error that he fell a Victim to his own Instrument.

THURSDAY, NOVEMBER 19TH.

ROYAL SOCIETY (Burlington House, London, W.).—Mr. A. Mallock, Colonel Sir Sidney Burrard, Mr. G. W. Walker, Mr. W. Jevons, and Prof. E. Wilson.

ROYAL SOCIETY OF MEDICINE (SECTION OF DERMATOLOGY) (1 Wimpole Street, W.).—5 p.m.: Exhibition of Cases.

FRIDAY, NOVEMBER 20TH.

ROYAL SOCIETY OF MEDICINE (SECTION OF OTOLOGY) (1 Wimpole Street, W.).—5 p.m.: Cases and Specimens by Dr. Wyatt Wingrave, Mr. C. E. West, Mr. E. D. Davis, Mr. W. M. Mollison, and others.

SOCIETY OF TROPICAL MEDICINE AND HYGIENE (11, Chandos Street, Cavendish Square, W.).—8.30 p.m.: Paper: Sir William Osler, Bart.: Enteric in War, with Means for its Prevention.

MONDAY, NOVEMBER 23RD.

ROYAL SOCIETY OF MEDICINE (SECTION OF ODONTOLOGY).—8 p.m.: Paper: Dr. H. Lambert Lack: The Influence of Nasal Obstruction on Abnormalities of the Jaws.

ROYAL SOCIETY OF MEDICINE (SECTION OF LARYNGOLOGY).—The Members of this Section are specially invited to attend this meeting.

Vacancies.

County Asylum, Chester.—Third Assistant Medical Officer. Salary £200 per annum, with board, lodging, and washing. Applications to G. Hamilton Grills, M.D., Medical Superintendent.

Nottingham General Hospital.—Senior House Physician. Salary £120 per annum, with board, residence, and laundry in the hospital. Applications to the Secretary

Hants County Asylum.—Third Assistant Medical Officer. Salary £250 per annum, with furnished apartments, board, washing, and attendance. Applications to the Visiting Committee, Hants County Asylum, Fareham.

Victoria Hospital, Burnley.—Second House Surgeon. Salary £135 per annum, with residence, board, and washing. Applications to F. A. Hargreaves, Hon. Secretary, 7 Grimshaw Street, Burnley.

Stroud General Hospital.—House Surgeon. Salary £120 per annum, with board, lodging, and washing. Applications to the Hon. Secretary, the Hospital, Stroud.

University of London.—University Chair of Physiology. Salary £600 per annum. Applications to the Academic Registrar, University of London, South Kensington, S.W.

London Temperance Hospital, Hampstead Road, N.W.—Assistant Resident Medical Officer. Salary £120 per annum, with board, residence. Applications to A. W. Bodger, Secretary.

Whitechapel Union.—First Assistant Resident Medical Officer. Salary £160 per annum, with rations, apartments, and washing. Applications to F. J. Tootell, Clerk to the Guardians, Union Offices, 74 Vallance Road, E.

Manchester Children's Hospital.—Resident Medical Officer. Salary at the rate of £100 per annum. Applications to W. M. Humphrys, Secretary. (See advt.).

Appointments.

FELL, A. N., M.D.Edin., Certifying Surgeon under the Factory and Workshop Acts for the Colchester District of the county of Essex.

MILLIGAN, HENRY JOSEPH, M.B., Ch.B.Glasg., D.P.H.Cantab., Tuberculosis Officer and Deputy Medical Officer of Health for the Borough of Bootle.

PHILIP, WILFRID PATON, M.B., Ch.B.Aberd., Resident Medical Officer to the Corporation Hospital and Assistant Tuberculosis Officer to the Borough of Bootle.

TAYLOR, JOHN MAXWELL, M.B., Ch.B.Aberd., D.P.H., Assistant Medical Officer of Health and Medical Inspector of Scholars for the Borough of Bootle.

TINDAL-ATKINSON, W. P., M.R.C.S., L.R.C.P.Lond., Radiographer to the Royal Westminster Ophthalmic Hospital

Births.

BOWLE.—On November 12th, at The Brook, Enniskillen, Co. Fermanagh, Ireland, wife of Captain C. W. Bowle, R.A.M.C., of a daughter.

COMERFORD.—On November 10th, at 11 Chester Square, S.W., the wife of Beaumont H. Comerford, M.D., D.P.H. (*née* Betty Woodgate), of a son.

DE MOUILPIED.—On November 8th, at 10 Eliot Hill, Blackheath, to Dr. and Mrs. A. T. de Mouilpied—a daughter.

HURTER.—On November 11th, at "Elmswood," Garston Old Road, Grassendale, Liverpool, the wife of Herbert R. Hurter, M.D., of a daughter.

PANTING.—On November 13th, at Harvey House, Watton S.O., Norfolk, the wife of John Panting, M.D., of a son.

VELLACOTT.—On November 12th, at 9 Tamar Terrace, Devonport, the wife of Harold F. Vellacott, F.R.C.S., of a son.

VOST.—On November 10th, at "Fyzabad," Crystal Palace Park Road, Sydenham, the wife of Lieut.-Colonel Vost, I.M.S., of a daughter.

Marriages.

HALLINAN—WARD.—On November 14th, at St. Mary's Catholic Church, Clapham, Lieutenant Alfred Ernest Hallinan, M.B., R.A.M.C., fourth son of John Thomas Hallinan, Esq., of Montanvert, Clapham Common, to Agnes Irene Harriett Ward, only daughter of James Ward, Esq., 48 Woolstone Road, Forest Hill.

RUSHWORTH—HARTIGAN.—On November 14th, quietly, at Holy Trinity, Weymouth, Surgeon A. N. Rushworth, R.N., son of Norman Rushworth, M.R.C.S., L.R.C.P., of Beechfield, Walton-on-Thames, to Vjera, youngest daughter of the late Major M. J. Hartigan and Mrs. Hartigan, of Ferndale, Walton-on-Thames.

STACK—JEFFCOTT.—On November 13th, at St. John's, Westminster, George Hall Stack, Capt. R.A.M.C., son of Rev. T. L. S. Stack, of Drunquin, Co. Tyrone, to Elizabeth Olivia, daughter of William Jeffcott, Esq., of Clonard, Killiney, Co. Dublin.

STEWARD—KIRK.—On November 11th, at Christ Church, Doncaster, Edward S. Steward, F.R.C.S., of Harrogate, to Edith Jane, third daughter of Mr. and Mrs. W. W. Kirk, of Ripon.

Deaths.

ALEXANDER.—On November 14th, at his residence, 38 Glenloch-road, Haverstock Hill, Robert Reid Alexander, M.D.Aber., late Medical Superintendent, Hanwell Asylum.

BROWN.—On November 10th, at Syers' Lane, Whittlesey, Dr. John Brown.

DOWDING.—On November 15th, in Gloucester, A. W. Woodman Dowding, M.D., aged 62, lately of Algeciras.

HAYWARD.—On November 6th, at 6 Langford Place, N.W., James Hayward, M.R.C.S.Eng., late Surgeon Cancer Hospital, Fulham Road, aged 76.

HERRINGHAM.—Killed in action, on October 30th or 31st, Geoffrey Wilmot Herringham, Capt. 6th Dragoons, attached 5th Dragoon Guards, only son of Sir Wilmot Herringham, M.D., aged 31.

MOLINE.—On November 10th, at 42 Walton Street, S.W., Paul Frank Moline, M.B., M.R.C.S., aged 57.

RIDLEY.—On November 7th, of dysentery, in a hospital at Kragnejevatz, Serbia, Dr. William Ridley.

ROBINSON.—On November 10th, at his residence, 79 East Hill, Wandsworth, very suddenly, Surgeon-Major Mark Robinson, I.M.S. (retired), aged 65.

SALE-BARKER.—On November 10th, at the Nursing Home, 247 Devonshire Road, Honor Oak, S.E., Maurice Drummond Sale-Barker, M.R.C.S., L.R.C.P., Surgeon-Captain Legion of Frontiersmen, aged 40.

SMITH.—On November 14th, after a short illness, Eustace Smith, M.D., F.R.C.P., Consulting Physician to the City of London Hospital for Diseases of the Chest, aged 79.

SMITH.—On November 9th, suddenly, at Milton House, Rowland's Gill, Newcastle-on-Tyne, Dr. James Wilkie Smith, junior, aged 29.

STONEY.—On November 10th, in Australia, R. Bindon Stoney, M.B., T.C.Dub., aged 47 years, the second son of the late G. Johnstone Stoney, Sc.D., F.R.S.

OPERATIONS—METROPOLITAN HOSPITALS.

WEDNESDAY.—St. Bartholomew's (1.30 p.m.), University College (2 p.m.), Royal Free (2 p.m.), Middlesex (1.30 p.m.), Charing Cross (3 p.m.), St. Thomas's (2 p.m.), London (2 p.m.), King's College (2 p.m.), St. George's (Ophthalmic, 1 p.m.), St. Mary's (2 p.m.), National Orthopædic (10 a.m.), St. Peter's (2 p.m.), Samaritan (9 30 a.m. and 2.30 p.m.), Gt Ormond Street, (9 30 a.m.), Gt. Northern Central (2 30 p.m.), Westminster (2 p.m.), Metropolitan (2.30 p.m.), London Throat (9.30 a.m.), Cancer (2 p.m.), Throat, Golden Square (9.30 a.m.), Guy's (1.30 p.m.).

THURSDAY.—St. Bartholomew's (1.30 p.m.), St. Thomas's (3.30 p.m.), University College (2 p.m.), Charing Cross (3 p.m.), St. George's (1 p.m.), London (2 p.m.), King's College (2 p.m.), Middlesex (1.30 p.m.), St. Mary's (2.30 p.m.), Soho Square (2 p.m.), North-West London (2 p.m.), Chelsea (2 p.m.), Great Northern Central (Gynæcological, 2.30 p.m.), Metropolitan (2.30 p.m.), London Throat (9.30 a.m.), St. Mark's (2 p.m.), Samaritan (9.30 a.m. and 2.30 p.m.), Throat, Golden Square (9.30 a.m.), Guy's (1.30 p.m.).

FRIDAY.—London (2 p.m.), St. Bartholomew's (1.30 p.m.), St. Thomas's (3.30 p.m.), Guy's (1.30 p.m.), Middlesex (1.30 p.m.), Charing Cross (3 p.m.), St. George's (1 p.m.), King's College (2 p.m.), St. Mary's (2 p.m.), Ophthalmic (10 a.m.), Cancer (2 p.m.), Chelsea (2 p.m.), Great Northern Central (2.30 p.m.), West London (2.30 p.m.), London Throat (9.30 a.m.), Samaritan (9.30 a.m. and 2.30 p.m.), Throat, Golden Square (9.30 a.m.), City Orthopædic (2.30 p.m.), Soho Square (2 p.m.).

SATURDAY.—Royal Free (9 a.m.), London (2 p.m.), Middlesex (1.30 p.m.), St. Thomas's (2 p.m.), University College (9.15 a.m.), Charing Cross (2 p.m.), St George's (1 p.m.), St. Mary's (1 p.m.). Throat, Golden Square (9.30 a.m.), Guy's (1.30 p.m.).

MONDAY.—London (2 p.m.), St. Bartholomew's (1.30 p.m.), St. Thomas's (3.30 p.m.), St. George's (2 p.m.), St. Mary's (2.35 p.m.), Middlesex (1.30 p.m.), Westminster (2 p.m.), Chelsea (2 p.m.) Samaritan (Gynæcological, by Physicians, 2 p.m.), Soho Square (2 p.m.), Royal Orthopædic (2 p.m.), City Orthopædic (4 p.m.), Great Northern Central (2.30 p.m.), West London (2.30 p.m.), London Throat (9.30 a.m.), Royal Free (2 p.m.), Guy's (1.30 p.m.).

TUESDAY.—London (2 p.m.), St. Bartholomew's (1 30 p.m.), St. Thomas's (3.30 p.m.), Guy's (1.30 p.m.), Middlesex (1.30 p.m.), Westminster (2 p.m.), West London (2.30 p.m.), University College (2 p.m.), St. George's (1 p.m.), St. Mary's (1 p.m.), St. Mark's (2.30 p.m.), Cancer (2 p.m.), Metropolitan (2.30 p.m.), London Throat (9.30 a.m.), Royal Ear (3 p.m.), Samaritan (9.30 a.m. and 2.30 p.m. Throat, Golden Square (93.0 a.m.), Soho Square (2 p.m.).

MANCHESTER CHILDREN'S HOSPITAL,
PENDLEBURY. Near MANCHESTER (168 Beds).

Wanted a RESIDENT MEDICAL OFFICER, Lady or Gentleman who will be appointed for six months.

Candidates must be unmarried, doubly qualified, and duly registered. Salary at the rate of £100 per annum. Applications, stating age, and accompanied by copies of not more than five testimonials to be sent to the undersigned at the Hospital, Pendlebury, near Manchester, at once. Duties to commence December 1st, 1914.

By Order.
W. M. HUMPHRY, Secretary.

THE MEDICAL PRESS AND CIRCULAR.

"SALUS POPULI SUPREMA LEX"

VOL. CXLIX. WEDNESDAY, NOVEMBER 25, 1914. No. 22.

NOTES AND COMMENTS.

The Relief of the Belgian Doctors.

It will be within the recollection of readers that a small Belgian Medical Relief Committee was formed in London, and held its first meeting on November 4th, the day on which Professor Jacobs' original appeal was published in our columns. For some reason that is not clear the appeal of Dr. Jacobs did not appear until November 21st in either of the two medical journals whose editors are members of the committee of eight. It was announced in one of these journals that the committee had gone to work strenuously. That assurance is particularly gratifying, coming from the small knot of enthusiasts who have voluntarily assumed so heavy and responsible a burden. The outcome of their first deliberations, however, hardly suggests a firm grip of the urgent necessities of the case. From a body composed of alert men representing several learned London Corporations and two medical journals one would look for the essence of practical wisdom. So far as can be gathered, however, they do not propose to give monetary aid to the medical men, at any rate, not in the immediate future. Their appreciation of the position is shown by the following passage:—"The survivors return to their ruined homes, when it may be possible to return at all, to face the winter and the threat of diseases due to exposure, and the epidemics which must be expected to follow the wholesale destruction of all the machinery of civilised life, while their doctors, who have shared in the common ruin and pillage, have not the appliances or drugs for ordinary professional work."

The Right Kind of Help.

It is clear, then, that the committee, which is carefully described in a leading article as "provisional," realises the sufferings of our Belgian colleagues with dramatic insight. Yet their proposals for the mitigation of the trials of the practitioners on their return to their ruined homes, "when it may be possible to return at all," forms a striking antithesis to their strenuous activity in calling together at an instant's notice a body of relief and discussing the pros and cons of a most critical situation. Dr. Jacobs estimates that about 1,000 medical men and 300 pharmacists are now in Belgium "absolutely poverty-stricken and unable to earn their living." The committee have decided on the preliminary step of sending out packets of portable medical and pharmaceutical materials. They also ask for surgical instruments, and intimate that, though not of the latest pattern, they would nevertheless be "extremely valuable." We venture to think that is not the kind of help wanted by a penniless medical man returning to bare walls and a devastated countryside. On the other hand, the warmth and generosity of the Irish meeting on the 20th at the Royal College of Physicians in Dublin shows a vital appreciation of the response that should be given to the pathetic cry for help raised by our gallant Belgian colleagues. The Editor of THE MEDICAL PRESS AND CIRCULAR will be pleased to receive any subscriptions for the Belgian Medical Relief Fund, addressed to 8, Henrietta Street, Covent Garden, London, W.C., or to the Irish Office, Dublin.

Belgian Doctors Practise in Britain.

THE announcement that several Belgian medical practitioners have received permission to practise in London raises once more the question of the "recognition" of foreign degrees and diplomas in this country. Apart from the fact that medical qualifications obtained on the Continent are not, under ordinary circumstances, registrable in Great Britain, the extension of the right to practise over here to those Belgian medical men who have been ruthlessly deprived of their means of livelihood through the war is a graceful way of acknowledging our indebtedness to them as the sorely harassed representatives of the bravest nation of modern times. It is understood that several important civilian medical posts in France have been offered to and accepted by Belgians. That a Belgian medical practitioner should be allowed to treat the sick refugees from his own country in any land whither they have fled may be readily understood, but it might not be impossible to go one step further and to admit to the British *Register*, say, for the period of the war, Belgian medical men who are duly qualified to practise in their native land, so that they may be enabled to provide for themselves and their families until it is safe for them to return. In suitable cases they might even be permitted to replace British practitioners who are upon Red Cross service, for which their knowledge of the language would stand them in good stead. The M.D. degree of the University of Brussels has always been held in high esteem in this country, and during the present crisis it might be worth while to allow this, and other Belgian qualifications of like standing, to admit their holders to some temporary privileges. Perhaps the General Medical Council will have something to say upon the matter during the present session.

The "Medically Rejected" as an Army Asset.

THE pathetic position of the medically rejected recruit induces one to consider carefully any proposition that affords a chance of some mitigation of his lot. Clearly, a physical standard must be fixed, and it goes equally without saying that the fewer soldiers wanted by the State the higher will be its requirements. Yet so far as the fighting value of the soldier is concerned, it is not a matter of vital importance whether—other things being equal—he stands five feet or five feet four in his socks. Mere height does not help him much nowadays—except, perhaps, in hand-to-hand encounters, a slight advantage that is far outweighed by the relatively larger target surface which he offers to the enemy. A standard in eyesight is of vastly greater importance to the combatant infantry soldier, for the bulk of his fighting is likely to be conducted by rifle fire at long ranges. Even if he be permitted to correct his refraction with spectacles, the risk of losing his glasses or of having them obscured by a drizzling rain prevents him being a perfect machine from the military point of view. Chest measurement and expansion are other factors that may at times throw out men who would make useful soldiers. It has been suggested that one or more corps should be formed of "medically rejected" men—of course, assuming that the cause of rejection was one that would not prevent them undergoing the hardships of camp life or of reasonably severe training. Provided a man can go through his drills, live an open-air life, and learn how to handle and shoot straight with a rifle there should be room for him in the reserve forces. If the demand for more men should persist, it would be well for the War Office to consider a proposition that would provide them with a good number of keen soldiers to draw upon in time of need.

A Voice from the North. A letter in the *Aberdeen Journal* puts the case of the "medically rejected" so well that it may be quoted at some length. "Perhaps there are others who, like myself," he writes, "joined Kitchener's army, and they got discharged as being medically unfit for the front. 'Medically unfit for the front' in no way means 'medically unfit for home service at a critical moment.' We will assume for charity's sake, as well as for a working hypothesis, that all the strapping young men to be seen parading the streets, with civilian clothes and a bored expression, are those who have failed, or know they would fail, to satisfy the medical examiner. Surely some use could be made of us! Could we not form a company amongst ourselves and practise rifle-shooting? This would involve (*a*) rifles, (*b*) a rifle-range, (*c*) an instructor, and (*d*) cartridges. Perhaps the military authorities in Aberdeen would be willing to give the loan of Nos. (*a*) and (*b*) if they saw that we were a responsible band of young men willing to provide Nos. (*c*) and (*d*) out of our own pocket. This suggestion is meant to embrace West-enders rather than shop assistants and artisans, who have responded more nobly to their country's call, though, of course, it is open to all willing to sacrifice a little time and pocket-money." The matter certainly is worth further discussion in the interests of the public.

The Medical Roll of Honour. Since the publication of our last list the following casualties have been reported among officers of the Royal Army Medical Corps: Officer killed in East Africa,—Captain C. A. T. Conyngham, R.A.M.C. Officers wounded among the Expeditionary Force:—Major A. W. A. Irwin, R.A.M.C., Captain K. Comyn, M.D., R.A.M.C., Capt. W. F. M. Loughnan, R.A.M.C., Lieut. A. Watson, R.A.M.C. Officer previously officially reported wounded and missing, now unofficially reported wounded and prisoner of war, Capt. A. A. Meaden, R.A.M.C. Officer previously officially reported wounded and missing, now unofficially reported prisoner of war, Capt. C. W. Holden, R.A.M.C. Officer unofficially reported wounded, Lieut. W. H. Lister, R.A.M.C.

LEADING ARTICLES.

A BOON FOR COLONIAL, INDIAN, AND FOREIGN MEDICAL STUDENTS.

The two London Royal Colleges, those of the Surgeons and the Physicians respectively, have recently taken a step that is not likely to lessen their popularity in the East. Last week it was announced that they had approved and adopted a recommendation from the committee of the two colleges to admit on certain conditions to their final examination students of Colonial, Indian and foreign universities, recognised by the Conjoint Board. This decision throws open the doors of the colleges to a number of students in various parts of the world who would otherwise have been either excluded or greatly handicapped in their attempts to secure an English qualification. The necessity of visiting England to undergo the final examination is still present, but that is a very different matter from the two or three costly journeys and prolonged residence hitherto imposed upon foreign and colonial candidates for a college diploma. During recent years repeated protests have been made by those interested in medical education and in the medical service of India and Ceylon, and these have been on frequent occasions pressed by influential persons upon the attention of the home government. As might have been anticipated, the provincial medical schools and universities gradually relaxed the terms of the residential and other conditions attached to foreign and colonial students seeking a medical qualification. It is certain that during recent years the greater proportion of such students have flocked to Irish, Scotch, and provincial colleges and universities instead of to the metropolis. The action now taken by the English colleges may redirect the stream in their direction, at any rate, so far as the mere portal of entrance to medical qualification is concerned. As to the greater and more enduring foundation which it should be the aim of every really great body of the kind to establish—the world-wide bond of common interest and loyalty, begotten of long tradition and cemented by zealous co-operation—that may follow some day when the colleges abandon the selfish traditions which at present render them the happy hunting ground of a privileged few rather than their constituent licentiates and members. The way in which both colleges rigorously exclude the lower ranks of their diplomates from any voice in the management of the affairs of the corporations forms a grotesque and anomalous survival in the present democratic age. But whatever defects may exist in the constitution of the English colleges, it must be freely acknowledged that they have conferred a vast obligation upon the world by their steadfastness to the high ethical ideals and the scientific progress of the medical profession—a debt the full significance of which it is impossible even to formulate. The wise friends of these ancient corporations may well express a hope that the present removal of restrictions may betoken the advent of broader and more modern methods to their policy. Their new regulation states that students of Colonial, Indian, or foreign universities who shall have passed such an examination, or examinations, at their universities for the degree of Doctor or Bachelor of Medicine or Surgery as shall comprise the subjects of the first and second examinations of the Board, and who shall have completed the curriculum of medical study required by the regulations of the Board, will, two years after having passed such examinations, be eligible for admission to the third or qualifying examination for the L.R.C.P. and M.R.C.S. examinations.

CURRENT TOPICS.

Proposed Red Cross Hospital for Dublin.

We understand that the City of Dublin Branch of the British Red Cross Association has had under consideration the provision of further hospital accommodation for wounded soldiers in Dublin. It is admitted that the resources of the general hospitals are at present taxed to the utmost, and that further accommodation will be urgently required in the immediate future. One suggestion discussed by the City of Dublin Branch was to establish as quickly as might be a hospital with five hundred beds, either in some existing building or buildings if any could be found suitable, or in temporary buildings to be erected in some open space such as the Phœnix Park. A suggestion was added that such a hospital, though doubtless reduced in size, might be retained as a permanent institution specially for the training of Red Cross workers. It is felt, however, that Dublin has already far too many small hospitals, and such a scheme would receive little financial support. An alternative to the establishment of a new hospital, temporary or permanent, is the temporary extension of such of the existing general hospitals as have space available for building. Many of them have such space and would be willing, we understand, to devote it to this purpose. The hearty co-operation of the surgical staffs would also be secure. The scheme seems to be the most economical and businesslike put forward, but we understand that it does not meet with the entire approval of the military authorities. They prefer the erection in the grounds of their own hospital of temporary structures sufficient to accommodate the requisite number of beds. We can quite understand the wish of the military authorities to centralise their hospital work. The responsibility for the maintenance and staffing of such a hospital must, however, rest with the military authorities, and not with a philanthropic organisation.

The Management of Wounds in War.

One of the greatest medical problems of the present war is the care of torn tissues that have been invaded by septic micro-organisms. On every hand the dire effects of sepsis among the wounded are manifest, and, in addition, there are the risks of possible infection with tetanus or with acute spreading gangrene. Were all the wounds received in battle to be inflicted under aseptic conditions their danger would be far less, but every medical officer at the front knows full well that the attendant circumstances all conspire to render the infection of even the smallest wound not a probability but a practically inevitable complication. The idea that the principles of strict asepsis, as opposed to antisepsis, could be relied upon in the treatment of wounds in war was entirely disposed of by Sir Watson Cheyne, Bart., C.B., President of the Royal College of Surgeons of England, in his able introductory remarks to the discussion upon the subject which took place last week before the Medical Society of London. If ever Listerism needed vindication at the present time one has only to compare the results of the treatment of wounds in war by aseptic dressings with those obtained by the timely use of antiseptics such as carbolic acid, tincture of iodine, and hydrogen peroxide. The latter agent, according to French authorities, appears to be particularly useful in the treatment of acute spreading gangrene. When an infected wound is adequately drained, dressed, and irrigated, if necessary, in accordance with antiseptic principles, the patient has a much better chance than if his injuries were imperfectly disinfected, or, worse still, treated only with boiled water and sterile coverings. In addition the timely use of appropriate vaccines and sera may further promote the chances of recovery.

Stock Mixtures.

The question of stock mixtures or no stock mixtures is agitating many minds. Where the Insurance Act holds its stampy sway, where doctors and chemists fight for the floating sixpence—elusive as the bob cherry of our early days, there we hear the latest cry. The chemist gets, or does not get, as the funds may be, a fixed price for his drugs and a fee for dispensing them. In many places local formularies are in vogue and are used quite successfully by the autochthonous physicians. The chemist makes up many of these formulæ in bulk and duly fills the bottles. He gets paid for his drugs and, in addition, he gets a fee for the dispensing which he does in bulk. It has been proposed that certain stock mixtures should be used which should carry no dispensing fee, but the chemist is up in arms. This time he is the champion of the ill-treated patient. How can anyone get well, he asks, on a stock mixture? What reach-me-down potion, be it concocted never so cunningly, can heal the varied individualities in need of a stimulating expectorant? There is, no doubt, something in the cry. No pharmaceutical wail was heard when medicines were prescribed *pro formâ*. And after all, it is not hard to retort with a *tu quoque*. Who but he runs lines of "lung tonics" and "liver mixtures"? Stock mixtures, of course, are not suitable treatment for the whole of a panel practice—if they were, diagnosis would be reduced to cases of "M.F.Q.S.," Mist. Pect. Stim., and so on, but they are undoubtedly useful in the commoner sort of compaints. Each of us has his favourite prescription for certain ailments, and the fact that he writes it afresh for each case does not alter the principle in the least. We find some drugs useful for minor ailments in otherwise healthy people, and the fact that we give the same treatment to two of them does not in any way lessen its therapeutic value.

Myelitis after a Fright.

The occurrence of various functional forms of paralysis after experiencing some severe nervous shock is well known to medical practitioners, but it is not so universally recognised that fright may act as an *agent provocateur*, in the sense of French writers, of some grave organic lesion of the cerebro-spinal nervous system. A case of acute myelitis following a struggle with burglars, ending fatally, is described by Dr. William G. Spiller, (a) Professor of Neuropathology in the University of Pennsylvania. The patient was the proprietor of a restaurant, aged 38 years, married. He was violently assailed by three men at one o'clock one morning, but with assistance he succeeded in driving them off, not sustaining any physical injury himself, though he was greatly upset mentally. Two days after this event he found that he could only walk with difficulty, his legs feeling numb. Signs of motor paralysis supervened with ankle clonus and Babinski's reflex distinctly marked on each side. A rectal abscess developed extending into the abdomen and death occurred three weeks after the onset of the illness. At the *post-mortem* evidences of myelitis were found in the mid-lumbar region of the spinal cord. In discussing the ætiological relationships of fright to lesions of the nervous system, Dr. Spiller quotes the observations of Leyden, Todd and others, who have reported similar cases. The present case, however, may be regarded as one of myelitis following a peri-rectal infection, but it is not impossible that the fright which the man experienced increased his liability to the spinal lesion, for an ascending neuritis of infective origin is a neurological rarity.

"Jaw-Winking" in Children.

Of the making, or rather recording, of new clinical signs there seems to be no end. Some of them are useful as diagnostic helps, such as "tracheal tugging" in cases of aortic aneurysm, while others are of a more academic interest and do not always indicate grave organic lesions. Among the latter group, perhaps, may be included the curious phenomenon described by Marcus Gunn, in 1883, as "Jaw-winking," a good account of which has recently been given by Dr. E. A. Cockayne, of the Middlesex Hospital, in the *British Journal of Children's Diseases*. Briefly, the sign consists in the involuntary elevation of the upper lid while performing certain movements of the jaws, face, tongue or pharynx. More than seventy cases have been reported in the literature since its first description, and in sixty-three of these ptosis was present in fifty-two. Some paresis of the superior rectus muscle is frequently present at the same time, and other nervous lesions, such as facial paralysis, so that the condition is regarded as being probably a special form of congenital ptosis or ophthalmoplegia externa. In one case, that of a baby aged six months, described in detail the right eyelid went up and down as the infant sucked at the breast, and a slight ptosis was present. The phenomenon has been stated to be due to a deficiency in the cells of that part of the third nerve which supplies the motor fibres to the levator palpebræ superioris, direct innervation occurring from the fifth. Some observers are disposed to regard the condition as due to an exaggeration of normal associated movements. As a rule the habit of "jaw-winking" tends to disappear, only a few persisting into adult life.

Hydrogen Peroxide in Warfare.

Among the oxidising disinfectants in common use the peroxide of hydrogen, in its official form of liquor hydrogenii peroxidi, may rightly claim attention at the present time, when the question of wound treatment is so forcibly brought to the notice of the profession. It is reported from the front that peroxide of hydrogen (*eau oxygenée*) is one of the most reliable agents for the combating of gangrene resulting from wounds in the trenches. Angus Smith regarded this remedy as "the disinfectant of the future," and, if it has not actually attained to that high pinnacle of fame, it is largely due to the fact that the principle of antisepsis has been superseded by that of asepsis. Nevertheless, in the surgery of warfare occasions arise when antiseptics and disinfectants are urgently needed to combat the hosts of pathogenic bacteria which contribute so largely to the mortality of injuries from shot and shell. Being non-toxic and practically non-irritant, the peroxide is admirably adapted for the irrigation of infected or suppurating wounds, especially as it does not precipitate albumen. Provided that a free exit exist for the escape of the oxygen, which is so rapidly liberated when the peroxide comes into contact with organic material or discharges, there is no danger in the use of this substance to which, it may be mentioned incidentally, sanitas owes most of its disinfectant properties. Its internal use in tetanus and pneumonia was recommended by the late Sir W. B. Richardson, but it does not seem to have found favour except as a local disinfectant. If it can be shown that the dreaded gangrene can be best fought by the aid of hydrogen peroxide, then large supplies will be needed by every medical officer in the field.

Infections of the Umbilicus.

Among the "vague regions of the body" the affections of which receive but scant attention in medical text-books that of the umbilicus is by no means the least important. Up to about the fifth day after birth the umbilical area requires as much care as any surgical wound, for it seems pretty certain that many infective conditions have their origin at this comparatively unguarded spot. In the practice of many midwives the navel is quite disregarded so long as there is no hæmorrhage therefrom nor any obvious hernial protrusion. Dr. Raoul L. Vioran, of Chicago, calls attention in the *Medical Record* to several bacterial infections of this region which, in weakly or premature infants, may cause a good deal of trouble to the doctor and the nurse. Instead of the normal cicatrisation of the wound an exuberant granulation may persist—the so-called "umbilical fungus." This lesion readily becomes septic, leading to the development of an actual omphalitis or periomphalitis which, in turn, may be productive of erysipelas, umbilical arteritis, phlebitis, hepatic abscess, or even suppurative peritonitis. The importance of prophylaxis of such infections need hardly be mentioned and it must be seldom that they occur in the practice of a well-trained midwife or maternity nurse. At the first sign of umbilical suppuration a weak antiseptic fluid should be used for bathing, while tincture of iodine, or the solid silver nitrate may be employed as local applications to any fungoid growth or ulcer, and should a general infection have supervened antistreptococcic serum or the erysipelas phylacogen may be given a trial. Warm fomentations of boracic acid alternating with antiseptic dusting powders are generally acceptable in all cases of localised umbilical infection.

Pemphigus Neonatorum in Midwifery Practice.

The occurrence of an epidemic of pemphigus among newly-born infants has many times been traced to the practice of one particular midwife. First described as an independent affection by Oehme in 1773, it was frequently confused with congenital syphilis, but later its relationship with impetigo contagiosa became more evident. The exhaustive study of the disease by Richter leaves little doubt that pemphigus neonatorum is staphylococcal in origin, the more malignant type of case being due to the presence of a streptococcus in addition. The identity, therefore, of this affection with impetigo contagiosa is admitted by most dermatologists at the present day. As carriers of the infection midwives have long been suspected, and in an epidemic that took place some few years ago in an American city one midwife confessed to the fact that she had been "followed by the disease" in spite of all her efforts to rid herself of the infection. When she provided herself with a new dress and outfit the cases ceased to occur in her practice. The Medical Officer of Health for Birmingham, Dr. John Robertson, has lately called attention to this mode of spread in *Public Health*, and he states that no less than five outbreaks of pemphigus neonatorum have occurred in the practice of midwives of the city during the past eight years. Some of the outbreaks were of a virulent type, causing in one case five deaths out of thirteen children infected. It is noteworthy that all the epidemics are said to have occurred in the practice of untrained midwives. In an outbreak in Birmingham last summer fourteen cases were met with under one midwife. Dr. Robertson attributes the source of the infection to the apron or dress of the midwife, since the spread of the disease was arrested after disinfection of the clothing and the abolition of the powder-pad.

(a) *Journ. Amer. Med. Assoc.*, October 31st, 1914.

Belgian Doctors' Relief Fund.

We have pleasure in publishing the following preliminary list of subscriptions in response to our appeal for help to our suffering Belgian colleagues. In our next issue we hope to announce a substantial addition to the amount already contributed. Our Irish friends will be glad to learn that nearly £300 were subscribed at the meeting of the medical profession held at the Royal College of Physicians in Dublin conjointly with the Royal College of Surgeons. The amount thus collected is, we understand, to be distributed through the Medical Press and Circular. At the same time it may be noted that the object of the Committee appointed by the meeting was defined as that of "collecting subscriptions and distributing the money so collected towards the relief of the medical men of Belgium."

The following subscriptions have been received at the English Office:—

	£	s.	d.
Dr. J. A. Shaw-Mackenzie	3	3	0
A. A. Tindall, Esq.	1	1	0
David Walsh, M.D., London Editor of the Medical Press	1	1	0
Per Dr. J. H. Macnaughton Jones:—			
A "Thank Offering,"	5	0	0
Mrs. Bischoffsheim	5	0	0
Henry Sword, Esq.	5	0	0
C. W.	2	2	0
Mr. and Mrs. Batty	2	2	0
Lady Dixford	2	2	0
Mrs. Thomson	1	1	0
Mrs. Guyon	1	1	0
"Pandora"	1	1	0
Mrs. Cornwallis	1	1	0
Mrs. Bagshaw	0	10	6
Mrs. W. V. Thompson	0	10	6
	£31	16	0
Brought forward	31	16	0
Subscriptions received at our Dublin Office:—			
Alderman J. C. McWalter, M.D., Dublin	2	0	0
Dr. W. E. Waters, Carberry	1	1	0
Dr. J. Rowlette, Dublin	2	2	0
	£36	19	0

PERSONAL.

Dr. T. W. Wadsworth, M.D., Ch.B.Liverp., has been appointed Temporary Medical Officer of Health for the County of Dorset.

The following Surgeons have been promoted to the rank of Staff-Surgeon in His Majesty's Fleet:—T. Creaser, M.D., B.A., and H. M. Langdale.

The following members of the medical profession have been called to the Bar:—Dr. J. C. Macneillie (Middle Temple), Dr. W. Collingridge (Gray's Inn).

Dr. David Sommerville, M.D., D.P.H., M.R.C.P., has been appointed Medical Officer of Health of Harrow, in succession to the late Dr. Fletcher Little.

Mr. G. Mitchell Winter, L.R.C.P.Lond., M.R.C.S.Eng., L.S.A., D.P.H., has been re-appointed Deputy-Mayor of Torquay for the sixth consecutive year.

The children of the King and Queen of the Belgians paid a visit of inspection last week to the Red Cross Hospital at Alton, Hants, where there are 50 wounded Belgian soldiers.

Dr. Walter Ramsden, M.D., B.Ch.Oxon., has been elected to the Johnston Chair of Bio-Chemistry in the University of Liverpool, rendered vacant by the resignation of Professor Benjamin Moore.

Dr. A. Hyde Wear, M.B., B.Hy.Durh., D.P.H., Assistant School Medical Officer under the Newcastle-on-Tyne Education Committee, has been appointed Assistant Medical Officer of Health and Assistant School Medical Officer at South Shields.

A gold medal is to be presented by Mr. Henry S. Wellcome to Dr. Power to commemorate his directorship of the Wellcome Chemical Research Laboratories for 18½ years. In addition, Mr. Wellcome is causing a life-size portrait of Dr. Power to be painted.

Dr. Henry Joseph Milligan, M.B., Ch.B.Glasg., D.P.H., formerly Assistant Medical Officer of Health and School Medical Inspector of the Borough, has been appointed Tuberculosis Officer and Deputy Medical Officer of Health for the Borough of Bootle.

It is announced that Professor Warrington Yorke and Dr. B. Blacklock, of the Liverpool School of Tropical Medicine, have left on a research expedition to Sierra Leone, and also to report upon a suitable site for the "Sir Alfred Jones" Laboratory of the School in Sierra Leone.

Dr. Aldo Castellani, Director of the Clinic for Tropical Diseases at Colombo, Ceylon, has been offered by the Italian Government, and has accepted, the Professorship of Tropical Medicine in the University of Naples and the Directorship of the Royal Clinic for Tropical Diseases in the same city. Dr. Castellani will take up his duties there at the beginning of 1915.

CLINICAL LECTURE
ON
THE KIDNEYS AND HEART IN PREGNANCY : WITH SPECIAL REFERENCE TO THE BLOOD PRESSURE CHANGES.

By V. J. McALLISTER, M.B., M.A.O., F.R.C.S.I.,
Extra Assistant Master, Coombe Hospital, Dublin.

The prognosis for the pregnancy as also for life is serious where the kidneys become diseased in a pregnant woman whose heart is also diseased. Heart lesions or kidney lesions do not usually make the prognosis grave unless very advanced. This is particularly true for uncomplicated valvular heart lesions in which even repeated pregnancies do not necessarily render a grave prognosis justifiable. What is it then that tends to make the combination of heart and kidney lesions so serious ?

Before dealing with this question I thought it would be both helpful and instructive to consider briefly each of the following headings.

i. The influence of pregnancy on the normal circulatory system.

ii. The influence of pregnancy on a diseased circulatory system.

iii. The effect produced on the circulatory system of (*a*) the non-pregnant, (*b*) pregnant woman by the so-called pregnancy kidney.

iv. The influence of a diseased condition of the kidneys developing during pregnancy, on a previously diseased heart.

I will now deal with these headings in turn :—

Influence of Pregnancy on the Normal Circulatory System.

In the later months of pregnancy the blood pressure often becomes slightly elevated. It has also been shown by Professor Juntz and others that the total blood volume is increased. The heart has therefore to deal with a larger quantity of blood. The peripheral resistance and the rate of the ventricular contractions undergo no compensatory diminution. Such a condition of affairs necessarily determines an increase in the work to be performed by the heart. Its activity becomes greater and as a result the left ventricle hypertrophies to a varying degree. The existence of this hypertrophy and increased activity have been confirmed by the electrocardiographic observations so carefully carried out by Rubner. Gradually but surely, from day to day, the heart becomes trained and strengthened to withstand the sudden strain to which it will be subjected during parturition. The view that where during pregnancy the heart shows signs of breaking down, this is due solely or even in chief part to some special pregnancy toxin cannot be true. Mechanical factors brought into existance by altered conditions of work must also play a very important part.

Of investigations dealing with the effects of pregnancy on the blood vessels there are but few. Pankow reporting the results of his inquiries in the *Archives of Gynæcology* drew attention to the arterio-sclerotic changes occurring in the arteries of the uterus during pregnancy. The changes start in the outer coatings of the arteries and consist chiefly in a hypertrophy of the elastic fibres. The muscular layers of the larger arteries become hypertrophied. No one yet has brought forward work sufficiently complete to decide satisfactorily whether similar changes take place in the arteries of the body generally. Pregnancy may cure congenital hypoplasia of the vascular system.

Taking next the second heading :—

The Influence of Pregnancy on an Abnormal Circulatory System.

Chief amongst these abnormalities will be the various forms of heart lesions whether involving the valves, myocardium, or both together. In valvular lesions the changes induced by the additional complication of pregnancy will be merely a repetition of those processes by which compensation becomes established where valvular lesions exist uncomplicated by pregnancy. The heart muscle being unimpaired is still capable of very considerable hypertrophy. There is nothing unexpected in finding that in pregnancy also some valvular defects are more serious for the patient than others.

Where the muscular tissue is the seat of the cardiac disease in pregnancy the gravity of the case is greater. It is, however, more difficult to gauge than in dealing with valvular lesions. A heart whose musculature is found *post-mortem* to be extensively diseased may have worked most admirably up to the time of death. The converse is undoubtedly also true that where *post-mortem* slight myocardial lesions were demonstrable, *ante mortem* evidence of such were prominent. It would seem as though the only trustworthy way to form anything approaching a definite opinion where the suspicion of myocardial disease exists, is to have the patient under prolonged observation under varying conditions of strain. Chronic myocarditis sometimes results from protracted septic poisoning. A history of such in connection with child-bearing or other circumstance would help to confirm suspicion in a doubtful case. Particularly difficult to judge from the point of view of prognosis are cases combining valvular disease with myocardial degeneration. Fortunately in the majority of cases in which valves and myocardium become simultaneously affected the latter eventually recovers, the former alone sustaining alterations that are permanent. In rather less than 1 per cent. of all heart lesions is the disease so grave as to cause breakdown or death during pregnancy and parturition. I have seen but one fatal case.

Concerning conditions in which the blood-vessels are diseased I will only mention that the strain of parturition is liable to determine the giving way of vessels whose walls are extensively weakened by syphilitic or other poisons.

Coming next to the heading which I mentioned third in order :—

The Influence of a Diseased Condition of the Kidneys on the Circulatory System during Pregnancy.

One of the most frequent kidney lesions met with in pregnancy—pyelitis—is of no special interest in this connection. It but seldom determines pathological change in the heart except when neglected, and then merely as would any other septic condition existing for a long time. The important kidney lesions from the point of view of this paper are those associated with increased pressure within the blood-vessels, those lesions which determine before long the exaggerated apex beat and ringing aortic second sound so characteristic of increase of arterial tension. In such cases the walls of the left ventricle have become hypertrophied. Much has been said and written as to the exact nature of the changes in the kidney tissue which cause the increased arterial tension. It would seem to be primarily determined by physiological changes in the functioning of the renal arterioles. Later develop the better understood and more obvious anatomical changes. However induced, the increased blood pressure plays a useful *rôle* in helping to excrete against the exaggerated functional or anatomical renal resistance.

The changes that may develop in the kidneys during pregnancy are extremely varied. They may be of the most trivial nature—a mere catarrh of the epithelium lining the renal tubules—whilst in other cases there may be necrotic areas of considerable size. Daily examination of the urine of pregnant women will show that albuminuria exists in about 15 per cent. of cases. In a certain percentage of these the albumin is not of renal origin but comes from the mucous membrane of the bladder. In the later months of pregnancy the bladder wall is often greatly congested and extremely œdematous. It exudes a serous discharge whose albuminous content mixes with the urine. In only some 5 per cent. of cases is the albuminuria constant during the later months of pregnancy. As a rule the quantity of albumin is not large. Hyaline tube casts may also be met with. In about 1 per cent. of cases the quantity of albumin is really large. In such the daily excretion of urine is diminished, both granular and epithelial casts being also present. The clinical signs and symptoms are usually found to correspond in intensity to the degree and extensiveness of the renal changes. In the cases of slight intermittent albuminuria symptoms may be completely wanting and the albuminuria is only discovered in the course of a routine urine examination Where, on the other hand, the quantity of albumin in the urine is large there is usually well marked œdema of face, hands, legs, vulva, etc., and the patient often presents in addition obvious evidence of toxæmic poisoning in the form of severe headache, vomiting, abdominal pain, disturbance of vision, etc., ending not infrequently with eclamptic convulsions. One must assume that the mildest cases with intermittent albuminuria result from a fleeting functional disturbance of the renal epithelium. The term pregnancy kidney is applied to the kidney found associated with the type of albuminuria which is persistent during the last two or three months of pregnancy. Leyden it was who first accurately described the changes undergone by the kidney, and emphasised the degenerative nature of these changes consisting as they do in cloudy swelling and fatty infiltration of the protoplasm of the epithelial cells in the glomeruli and convoluting tubules. The non-inflammatory toxic nature of these lesions renders it easier to understand the extremely rapid recovery which often takes place post partum in even the severest cases of albuminuria during pregnancy. Rarely are the changes determined by pregnancy permanent. It is quite the exception for the kidney of pregnancy to become replaced by a permanent chronic parenchymatous or interstitial nephritis. Such an ending does, however, sometimes occur, and this is perhaps most likely to be the case where owing to rapidly succeeding pregnancies a pregnancy kidney has not sufficient power of recovery to resume its normal condition within the short interval separating the pregnancies. Purely toxic cases recover rapidly post partum.

Attempts are made to differentiate different groups of cases, but no sharp line of demarcation exists to divide any group absolutely from another. All grades of kidney disturbances are met with. Every attempt at classification into sharply defined clinical groups can only be unsatisfactory and unnatural. Intermediate conditions, transition forms, mixed or complex cases exist as links rendering all such strict classification misleading.

Dealing next with the behaviour of the blood pressure, the cases characterised by intermittent albuminuria exercise very little effect in this direction. They are seldom associated with any marked rise of blood pressure, and cause no hypertrophy of the left heart. A very considerable albuminuria may exist with a very slightly elevated blood pressure reading, both returning within physiological limits after a brief course of dietetic treatment. These, the mildest cases, pass insensibly into the cases presenting the picture of the acute pregnancy kidney. Chloride elimination estimations will, to some extent, help to separate borderline cases. The chronic pregnancy kidney invariably causes the blood pressure to be markedly elevated. Indeed, characteristic for this condition is a marked elevation in the blood pressure, in conjunction with persistent albuminuria, both tending to increase as pregnancy advances. Casts will be numerous in the urinary sediment, and there will be extensive œdema of face, hands, legs, vulva, etc.

Very great importance should be attached to the significance which a marked rise in blood pressure existing for a considerable period would be likely to possess for the heart. From a practical point of view, a useful division can be made clinically into the cases which are favourably influenced by treatment, and those in which in spite of milk diet, rest in bed, purgatives, etc., the blood pressure continues to remain highly elevated, registering 200 mm. of Hg. or more, and the other signs also show no tendency to improve.

Where the blood pressure remains persistently high, one is led to the conclusion, from what general pathology teaches, that, in addition to the alterations in the cells of the renal parenchyma, changes have also taken place in the interstitial tissues. Anatomical observations do not support the idea of a primary structural *alteration* of the blood-vessels. It would rather seem as if at the beginning one had to deal with a diminished sensibility of the renal arterioles. Less urine is passed, and the excretion of chlorides is diminished. What is it causes this lowered sensitiveness, this diminished power of reacting to stimuli? Perhaps pregnancy products, complex proteids, foreign to the maternal organism, which play the *rôle* of toxins. Many of these kidney changes start in the first half of pregnancy. The patients, however, do not die; consequently the exact condition of the kidneys is a matter of surmise. In such there may be hydatidiform degeneration of the chorion.

Schlayer and his co-workers showed that certain poisons pick out in particular the renal blood-vessels, lowering the sensitiveness of their reactive power: others act chiefly on the tubules, and with such the secretion of fluid by the kidney is uninterfered with. The increased arterial tension would seem to have as at least one of its objects to help in the excretion of effete materials by a kidney whose arterioles are not reacting normally to physiological stimuli. In so far as this is the case, increased blood pressure is beneficial to the patient.

Clinically one meets with cases in which the increase in the blood pressure is but slight, the excretion of urine practically normal although albumin is present in it, and yet the kidney condition shows no tendency to clear up under treatment. In such cases the parenchyma of the kidney must be chiefly at fault, as the blood-vessels are apparently functioning efficiently. Such cases seldom develop eclampsia. In two that I have had an opportunity of watching, the history suggested a possible relationship between the renal disturbance and a rather recent infective illness. Recurrent attacks of septic tonsillitis are liable to determine degenerative changes in the renal epithelium, and the existence of these lesions may first attract attention when the patient becomes pregnant.

Jasche suggests, without being able to offer satisfactory proof, that the rise in blood pressure which develops in association with the chronic form of pregnancy kidney does much to prevent the development of eclampsia. With such, excretion is undoubtedly less likely to be dangerously impaired. The more attentively one studies these renal cases the stronger grows the conviction that the full significance of blood pressure changes in connection with renal complications during pregnancy requires a great deal further investigating. The view sometimes advanced that a patient whose kidneys are eliminating a quantity of urine considerably below normal and whose blood pressure registers 180-200 mms. is necessarily on the verge of eclampsia is not in accordance with my own experience. I can recall two recent cases where no such complication ensued, the renal secretion improving with rest in bed, milk diet, etc. It would seem to me that an attempt to recognise and describe a definite pre-eclamptic condition must, with our present incomplete understanding of such obscure processes, be unwise. I am rather inclined to believe that a moderately high blood pressure reading of, say, 180, in association with the other symptoms and signs of chronic pregnancy kidney is favourable to the patient and renders the onset of eclamptic convulsions more remote. Quite recently in hospital I saw a patient whose blood pressure reading was only 160 m.m. develop ante partum extremely severe convulsions. The convulsions ceased with the birth of her baby. By strange coincidence there was in the Coombe Hospital at the same time a primipara, whose tissues were extremely œdematous, and her urine loaded with albumin. The blood pressure registered ante partum, and for a long time post partum, 200-210 mm.; and yet at no time did she show any symptoms of eclampsia or of the so-called pre-eclamptic state.

Is there obvious evidence of poisoning? Are there signs of toxæmia present? These are the questions one keeps asking oneself whilst watching a patient whose pregnancy is complicated by evidence of renal insufficiency. The answer, sometimes obvious, is often one of greatest uncertainty. Too much weight, however, must not be attached to a fall in the urinary secretion accompanying even a marked rise in blood pressure. Such a condition is often compensatory, and so far favourable to the patient's recovery. Its significance for the lasting power of the heart has, however, to be borne in mind. This I will deal with under the fourth heading—the effect exercised by diseased kidneys on a diseased heart.

Provided the heart lesion is thoroughly compensated the development of renal complication does not necessarily render the patient's condition precarious. Where the heart muscle is already in difficulties and signs of cardiac embarrassment have developed the outlook is of course very different. Where the history suggests that primary degeneration or chronic inflammatory changes have developed in the cardiac muscle fibres prognosis should be particularly guarded. In such the heart is peculiarly liable to fail suddenly. The other factors of importance from the point of view of prognosis are the nature and duration of the kidney changes. In other words, how long has the heart been subjected to the increased strain associated with the renal condition, and in what state has it left the cardiac muscle fibres?

Briefly restating what I have said so far:

Heart lesions *or* kidney lesions complicating pregnancy comparatively seldom prove fatal. Occurring together their association with pregnancy is usually extremely serious in its consequences.

Pregnancy determines an increased cardiac activity The heart slowly hypertrophies to withstand the sudden strain of parturition. Its accommodating power is subjected to a severe test at this time. Such a test will be more serious for a heart that is diseased.

Experience shows that the gravest cardiac lesions in this connection are those affecting the cardiac musculature.

Uncomplicated valvular lesions do not in the large majority of cases endanger either the pregnancy or the mother's life. Even successive pregnancies, if separated by an interval of some years, can be successfully passed through without aggravating the cardiac condition. In the case of muscular lesions a pregnancy may or may not have serious consequences. The result will be influenced by the ætiology of the muscle changes, the length of time they have been present, their extent, whether they involve particularly vital areas of the heart, etc.

The recognition and proper appreciation of degenerative changes in the myocardium demand experience and careful observation in conjunction with repeated functional testing.

Where the kidneys are diseased the behaviour of the blood pressure is of great importance. Should it become markedly elevated the heart will have greatly increased work to perform. After some weeks the walls of the left ventricle will be found hypertrophied.

The acute form of pregnancy kidney is not usually associated with much increase in blood pressure. The slight elevation met with rapidly responds to treatment.

The chronic form of pregnancy kidney is associated with a rise of blood pressure, which seldom exceeds 190 mm. of Hg. It is difficult, often impossible, to reduce the blood pressure in such to normal limits. Further, not improbably, to attempt to do so would be unwise. In some 6 per cent. to 8 per cent. of such cases eclampsia supervenes

A fatal termination is more often determined in eclampsia by the intense strain to which the convulsions subject the heart than to the action of any special toxin.

At best difficult, it is often impossible, to distinguish between a case of chronic pregnancy kidney and one where the symptoms are the sequence of pregnancy supervening in a patient already the subject of chronic nephritis.

This difficulty is due to the existence of intermediate cases and transition forms which act as links between the various clinical types. No sharp line of demarcation exists clinically or anatomically to separate one group from another.

Cases of pregnancy kidney are met with in which treatment is unavailing in lowering the markedly raised blood pressure which has succeeded in attaining a level usually regarded as characteristic for chronic nephritis complicated by the patient becoming pregnant. Even an initially sound heart is liable to collapse when exposed for a number of weeks to a pressure within the circulatory system of 200 to 220 mm. of Hg. with the added strain of pregnancy.

Post partum, in the acute toxic cases, the blood pressure rapidly falls to normal limits. Where pregnancy supervenes in a patient whose kidneys are already chronically diseased, the blood pressure remains elevated post partum.

I cannot conclude my paper without specially referring, though necessarily very briefly, to eclampsia. I have already introduced the subject in connection with blood pressure readings and their possible significance. Comparatively little work dealing with the metabolic changes induced by the earlier stages of pregnancy kidney has been undertaken. The patients are usually not sufficiently ill to seek advice at the outpatient department of our maternity hospitals. Even when they do present themselves and are admitted, it is very difficult to keep them in hospital for any considerable time. In this way the opportunity of satisfactorily observing the changing picture of their disease in its earliest stages is seldom available. We do not see them until the more urgent and frightening symptoms of eclampsia at length compel them to seek assistance. Especially amongst hospital patients one is not infrequently surprised with a history that absolutely no symptoms preceded the onset of the eclamptic convulsions. The patients believed themselves to be in most excellent health. At this late stage when convulsions have already become established one is no longer even certain how far the albumin, blood, casts, etc., present in the urine have resulted from the convulsions, and not from the original kidney lesions. I suppose we will eventually find that at least two if not more toxins are responsible for the eclamptic condition, and that not all of them, perhaps, have the same origin. One may be intestinal, another fœtal, still another derived from autolytic changes in placental infarcts. Fehling and Winter have particularly drawn attention to the placental lesions found associated with disease of the kidneys in pregnancy. They take the form of extensive intraplacental hæmorrhages, white infarcts, hæmorrhage behind placenta and in the uterine wall. These changes are sometimes sufficiently extensive to bring about the death of the child, and its premature expulsion from the uterus. A possible causal relationship between such placental lesions and eclampsia has been advanced by several observers.

A very little experience convinces one of the difficulty in foretelling what patient will develop eclampsia and what patient will not. Some women would seem convulsion-proof. Their urine is loaded with albumin, epithelial and granular casts are present in large numbers, their limbs, face, abdominal wall are extensively œdematous, the tension in their arteries greatly exceeds the normal, and yet they do not develop convulsions. With another group of patients just the converse is true, eclampsia developing with quite unexpected suddenness, and in spite of the apparently normal condition of their kidneys up to the time of onset of the first convulsions. The seasonable variation shown in the number of hospital cases and the severity of the disease amongst such cases is interesting and mysterious. Why robust, well-developed women should be more susceptible than those who are weakly and anæmic is also difficult to explain. Eclampsia is a disease of surprises. There still remains a great deal to learn about *it*, and the renal complications of pregnancy generally. The very complexity of the problems exercises a fascination.

Note.—*A Clinical Lecture by a well-known teacher appears in each number of this Journal. The lecture for next week will be by Professor Quenu, Surgeon to the Cochin Hospital, Paris. Subject: "Early Symptoms and Diagnosis of Cancer of the Rectum."*

ORIGINAL PAPERS.

BURNS OF THE EYE.

By PROF. D. CANTONNET, M.D.
Ophthalmologist to the Paris Hospitals.

[Specially Reported for this Journal.]

Burns of the eye may be caused by numerous caustic agents, among them flaming gases and caustic vapours. This very afternoon I saw a patient with a burn of the eye caused by acetic acid, which had spurted in the course of an examination of urine. The commonest and the worst burns are those caused by vitriol, though ammonia burns are by no means rare. Then come semi-liquid caustics, especially quicklime. Masons are familiar with this accident, and when one of them gets a little into his eye his comrades do their best to remove it without delay. Lastly, there are the solid caustics, *e.g.*, nitrate of silver or sulphate of copper. One of the risks attending the use of a stick of lunar caustic in eye work is that it may drop into the conjunctival cul-de-sac. I therefore advise you never to use nitrate of silver in sticks, but to apply solutions (one per cent.).

Then there are non-medicinal caustics, such as molten metal. Flaming gases inflict extensive but superficial burns, while those of molten metal are limited in area but deep. Vitriol burns present both characters, *i.e.*, they are both extensive and deep.

I will now discuss *seriatim* burns of the different parts of the ocular apparatus, beginning with burns of the eyelids. Generally speaking these, when superficial, are rather extensive burns, and all one sees is slight redness or a little ecchymosis which subsides in the course of a few days. All that is needed is a moist dressing, steeped in an isotonic solution (chloride of sodium 14 parts per 1,000).

If the burn extends rather deeper it may leave a deforming cicatrix entailing retraction of the eyelid—cicatricial ectropion. This retraction may affect the whole or only part of the eyelid. In the photograph which I hand round you will see that the victim only had a few drops of vitriol on the right cheek and the injury has left partial ectropion, while on the left side there is total ectropion of both eyelids.

When the ectropion is complete the globe of the eye is more or less completely uncovered and a subsequent operation becomes necessary in order to prevent infective ulceration of the cornea.

The next category of eye-burns comprises burns of the conjunctiva and cornea, which for that matter generally go together. The damage may be trifling or, on the contrary, extremely serious. Here is an instance: the patient was a dyer who coloured cardboard boxes by means of Paris violet, which is a fairly caustic substance. One of his mates stupidly blew some of the powder into his eyes. Attempts were immediately made to cleanse the eyes, but when he presented himself at hospital the cornea was badly ulcerated, for the simple reason that his "first aid" therapeutists had omitted to separate the eyelids and wipe away the caustic with a plug of cotton wool, so that some remained in the cul-de-sac.

A slight burn of the conjunctiva causes more or less erythema and running. If more severe the conjunctiva becomes quite blanched on account of its vessels being scorched and at the same time it is rendered anæsthetic by destruction of the nerves, consequently the palpebral reflex is absent. You will, therefore, be pleased to bear in mind that anæsthesia of the conjunctiva is of grave import and would lead us to apprehend cicatricial retraction.

In presence of severe burns of the cornea by vitriol or lime it becomes wholly or partially opaque like fried fish's eyes, or, if less grave, it is merely cloudy. But we must not base our prognosis on the aspect of the cornea only. The most important diagnostic element is anæsthesia of the cornea. In spite of this whiteness and opacity certain corneæ will recover, while others, which appear to be less severely injured, perforate and are destroyed—simply because in the latter there is anæsthesia of the cornea.

To formulate a correct prognosis in a case of burn of the cornea not only must we separate the eyelids widely in order to ascertain the translucency or opacity of the cornea but we must test its sensitiveness by touching it lightly with a lacrymal sound or other suitable instrument, after flaming it. If we obtain the palpebral reflex all over the cornea well and good; if not, we must be prepared for the worst. This exploration, I repeat, is of the greatest importance for the prognosis in this sort of injury.

In grave cases, when we find this anæsthesia during the first few days, it is soon followed by ulceration, usually culminating in perforation. When perforation takes place the aqueous humour escapes, the iris is drawn into the aperture (hernia of the iris) and obstructs vision, more or less completely, according to its seat and size. The prognosis is therefore very gloomy.

In presence of serious burns of the eyelids the first thing is to prevent desiccation of the eye, so that as soon as we detect indications of commencing retraction the eyelids must be sutured in order to protect the globe.

I shall show you directly a woman in our wards who was burned by a celluloid comb catching fire. In this case we partially sutured the eyelids and so managed to save the eye.

In burns of the conjunctiva we must practise instillations thrice daily of an antiseptic solution: Collargol, for instance (gr. vi. in dr. iiss. or iij. of water). Should adhesions form (*symblepharon*), an autoplastic operation will be required later on.

The principal thing in burns of the cornea is to remove all trace of the caustic. You find yourself confronted by a person into whose eye some caustic-lime, vitriol or chemical caustic has found its way. He rushes into your surgery, or you find him rolling on the ground in agony. He may be surrounded by a number of well-wishing persons who have poured water on the outside—not a bad thing, but inefficient, because the great danger is inside the eyelids.

You must at once secure the patient's head, regardless of his screams and struggles, force the eyelids open with your fingers or by the aid of retractors (hairpins bent so as to serve the purpose), while an assistant pours water freely *into* the eye. It is idle to think of trying to neutralise the alkali or the acid as the case may be, because that means delay; your pressing duty is to wash it away mechanically at once. If the caustic be a powder or a small hot body (cinder or incandescent metal), after getting rid of the greater part instill a few drops of a 3 or 4 per cent. solution of cocaine, and wash the eye out again and again, using a little cotton wound round a probe to cleanse the *culs de sac*. If the cornea be involved treat it as you would an ulcer of the cornea—viz., with atropine.

NOGUCHI'S CUTANEOUS REACTION FOR SYPHILIS. (*a*)

By J. W. SQUIRES, M.D.,
Charlotte Sanatorium.

Noguchi's success in growing the treponema pallidum in pure culture (*b*) made it possible for him to devise a cutaneous reaction (*c*) for the diagnosis of syphilis. This reaction is supposed to be of greatest value where the serum diagnosis is least efficient; therefore it deserves to be investigated. Its merit and limitation should be determined as accurately as possible.

Serum diagnosis for syphilis is most reliable in the latter part of the primary and during the secondary stage. In the tertiary stage it is not so efficient. From this fact it is evident that additional aid in diagnosing tertiary lesions is desirable.

In the past the application of a cutaneous test for syphilis was not considered practical. This was due to the fact that a pure culture of treponema pallidum could not be obtained. Investigators (*d*) were forced to utilise syphilitic tissues richest in treponema pallidum to make

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(*a*) From the *Urologic and Cutaneous Review*, October 1914.
(*b*) *Journal of Experimental Medicine*, Vol. XIV., No. 2.
(*c*) *Journal of Experimental Medicine*, Vol. XIV., No. 6.
(*d*) Neisser and Bruck, Gauthier, Nobl.

extracts. Such extracts could not be regarded as specific as they contained, in addition to the metabolic products of the germ, various tissue products which altered the reaction so as to destroy its specific nature, hence all work along this line proved unsatisfactory.

The luetin test, as devised by Noguchi, fulfils the requirements for a specific reaction. It consists of a pure extract of the luetic organism, and is capable of producing a specific reaction when injected into a luetic individual. The materials for the luetin test consist of a test emulsion of the dead treponema pallidum, and a control emulsion. which is made of the culture media without the organism. The emulsion of the treponema pallidum is called luetin. The two injections, test and control, are made intradermatically, a hypodermic syringe with a needle of small calibre being used. The usual site selected for the injection is the antero-internal surface of the arm, the luetin being injected in one arm and the control at a corresponding site in the other. Observations are continued from twenty-four hours to three weeks.

In non-luetic cases with the exception of a slight erythema no reaction occurs. In luetic cases, the site of the control injection shows no reaction, while that of the test injection shows in forty-eight hours or longer a local inflammatory reaction. This appears first as an erythematous zone with a slight induration around the site of injection, later a papule or pustule may develop. Cultures from those cases in which pustules develop reveal sterile pus.

The reaction in normal individuals, if any occurs, is very slight. It is possible that an erythematous discoloration may appear, but this gradually recedes, and at the end of forty-eight hours usually disappears. In some cases, there may be a small papule formed at the site of injection, but this soon disappears, never leaving more than a slight discoloration.

In luetic individuals, three types of positive reaction occur:

First: Erythematous: A diffuse erythema with induration.

Second: Papular: A papule surrounded by an erythematous zone.

Third: Pustular: A pustule which may discharge or undergo absorption. This is a later stage of the papular type. In positive cases, there is also a type of reaction known as the latent form.

The reaction in positive cases usually begins to appear in twenty-four hours, gradually increasing in intensity up to seventy-two hours, or longer, and then receding. In negative cases the reaction, if any occurs, reaches its height in twenty-four hours receding to about normal in forty-eight hours. In the latent type, for six days or longer apparently no reaction takes place; at the expiration of that time a slight itching and tingling sensation is perceived and the site of injection becomes inflamed, giving a positive test.

A study of the cutaneous test has been made as follows: Primary syphilis. Only a few cases of primary syphilis were tested. None reacted to the cutaneous test. However, the complement fixation test was positive in each case.

Secondary syphilis: The majority of the reactions were negative. Practically all cases that gave positive reactions were undergoing active treatment. In this stage it is observed that the complement fixation test gives a much higher percentage of positive reactions.

Tertiary Syphilis: The test was made on twenty-six cases of tertiary syphilis. All but four reacted positively.

Hereditary Syphilis: Only three cases were tested with positive results in all.

The following table shows the results of the luetin reaction in syphilis and other affections which we have been able to study.

	No. Cases	Clinical Manifestations		Recently Treated	Not Recently Treated	Wassermann		Luetin	
		+	—			+	—	+	—
Primary	3	3	0	0	0	3	0	0	3
Secondary	19	10	9	12	7	6	13	4	15
Teritary	26	16	10	14	12	13	13	22	4
Hereditary	3	2	0	1	2	0	3	3	0
Normal	12	0	1	0	0	0	0	0	0

The following are cases on which the luetin reaction was made, but the Wassermann reaction could not be obtained.

	No. Cases	Luetin	
		+	—
Melancholia	5	4	1
Dementia Præcox	26	7	19
Terminal Dementia	19	6	13
Mania	56	7	49
Epilepsy	29	7	22
Pellagra	19	1	18
Imbecility	5	1	4

In all types of syphilis, it is observed that specific treatment tends to intensify the cutaneous reaction. For instance, a case of primary or secondary syphilis may react very mildly, or not at all, but if mercury or salvarsan is given, often after ten days or two weeks the site of injection will show signs of a latent reaction and eventually flare up, giving a strong positive test. This is also true in tertiary and latent syphilis. In a few cases of tertiary and hereditary syphilis the local reaction was very marked. Constitutional symptoms also were apparent, the temperature in one case reaching 103°, the patient complaining of headache. In a few instances both arms reacted, but the control reacted earlier, and not so intensely, receding to normal in a few days.

The cutaneous reaction is not constant in primary and secondary syphilis. It is most constant in hereditary and tertiary stages, and gives a more delicate response than the serum reaction to patients who are under treatment. It is important to be conservative in interpreting the cutaneous reaction. We must remember it is possible for a normal individual to react to a certain degree. This point should be considered and a careful comparison of control and test injections made.

As to the value of this test, experience seems to show that used in conjunction with the Wassermann reaction, it will prove a valuable aid in the diagnosis and treatment of syphilis.

In conclusion, I wish to thank Dr. W. W. Faison, of the State Hospital, Goldsboro, N.C., for his co-operation in the study of the reaction on inmates of this institution; also desire to thank Dr. Noguchi for so kindly furnishing luetin for this study.

THE PREVENTION OF DISCOMFORT AFTER OPERATIONS. (*a*)

BY ASLETT BALDWIN, F.R.C.S.

Senior Surgeon to the West London Hospital; Surgeon to St. Mark's Hospital.

Gentlemen,—My first duty is to give you my best thanks for the honour you have done me in electing me to be President of this Society. When I think of the long list of distinguished men who have preceded me in this office, I feel it will not be an easy task worthily to follow in their footsteps, but I can say it will be a great pleasure to do my best to justify the confidence you have placed in me.

The advent of anæsthesia has robbed surgery of its horrors at the time of operations, and the time of waiting and apprehension immediately preceding them is generally smoothed over by the preliminary injection of narcotics. Afterwards, however, there are many discomforts awaiting patients which are well worth our best efforts to minimise or prevent. Some time ago I had operated upon a lady for hæmorrhoids, and on my inquiring if she had pain the first time the bowels acted, she replied there had not been any. The sister of the home told me afterwards that another surgeon's patient in the home described his experience on a similar occasion quite differently, he said "it was like passing a hedgehog backwards." It is popularly believed that a patient's experiences after an operation for hæmorrhoids are necessarily very painful, and evidently, if the man's words I have just quoted are to be believed, they can be anything but pleasant, but I think the exercise of care in attending to certain details would have made his experience approximate to that of the lady. Inflammation caused by sepsis is, as we know, the greatest cause of pain and discomfort after operations, and the great triumph of modern surgery is its abolition in many parts of the body, but equal care is frequently not taken for the prevention of sepsis before operations for hæmorrhoids and fistulæ, etc. I hope I may be forgiven for entering somewhat into details, for they are all important in attaining the object we have in view. The rectum should be empty and clean at the time of operation, and no bowel contents should come down during its performance. The aperient should be given not later than the morning before operation, and must be one which will not lead to constant dribbling, as is often the case with saline aperients. Castor oil, or its pleasant form, "laxol," answers this requirement, and its after constipating effect is another advantage. On the evening before operation a soap and water enema is given. Four hours before operation the bowel is washed out with warm water till it returns quite clear. If the patient's bowels are usually relaxed, 15 minims of tincture of opium should be given after the soap and water enema has acted on the previous evening. An hour before the operation $\frac{1}{4}$ gr. of morphia and $\frac{1}{100}$ gr. of sulphate of atropine is injected hypodermically, or some similar drug; besides other advantages this lessens the amount of anæsthetic required, and so lessens the discomfort of vomiting afterwards. When the patient is under the anæsthetic, preferably ether, the rectum should be swabbed out with a non-poisonous antiseptic, such as lysol, 1 drm. to the pint of water, and irrigated with the same solution under low pressure. The retained fluid should be expressed by a hand on the lower abdomen, the bowel dried with flat gauze swabs, and tincture of iodine painted externally. One per cent. solution of urea and quinine is now infiltrated into the operation area with a "record" syringe, and the operation proceeded with. This solution produces anæsthesia lasting many hours, and under its influence the sphincter muscle becomes relaxed, as it would with other local anæsthetics. The sphincter is not stretched—this is a proceeding which in nearly all cases is quite unnecessary. When the operation is completed the parts are again washed with an antiseptic solution and dried. An antiseptic and anæsthetic powder—borochloretone is one I frequently use—is well dusted on to the operation area, and a drachm or two of sterile vaseline or eucalyptus vaseline is forced into the bowel from a collapsible tube. A rubber tube $3\frac{1}{2}$ inches long and $\frac{3}{8}$ of an inch in diameter, is placed in the bowel, with about one inch left projecting, and the dressings applied. The tube allows flatus to escape easily, and so prevents discomfort; its presence also checks oozing, and if only a very small quantity of dressing is allowed to cover the end of the tube any serious hæmorrhage into the bowel will soon be apparent. Retention of urine will seldom follow the operation if these precautions are observed. If there is trouble with vomiting the patient is given copious drinks of bicarbonate of soda and water. As soon as possible solid food is given, but in reduced quantity. The patient should not be kept on slop diet until the bowels have acted, as is often done. This only leads to troublesome flatulent distension of the intestines, and should be given up as soon as possible. Milk particularly should be avoided, as it leads to the formation of gas and of hard scybala, which cause pain when they are passed. If the tube causes discomfort after twenty-four hours it can be removed, otherwise it can be left. It is essential, if discomfort and pain are to be avoided, that the motions shall be kept quite soft. To ensure this about a tablespoonful of liquid paraffin is given by the mouth twice daily, commencing the second evening after operation. On the third or fourth morning the patient is given an ounce of castor oil by the mouth, and four ounces of warm olive oil are injected into the bowel through the tube if it is still *in situ*; the tube is then removed. Otherwise the oil is injected through a soft catheter. The oil should be held as long as is comfortable: it softens the motions and lubricates the bowel, and generally the result is a painless action. The oil injection, but reduced to one or two ounces, should be repeated daily as long as is necessary. After the first day the anus should be irrigated with a weak antiseptic solution twice daily. A commode can be used when the bowels act, as a bed-pan causes much discomfort to many people. If skin tags or external piles have been cut away they should be anointed once or twice a day with eucalyptus ointment containing 10 per cent. of cycloform or similar non-poisonous anæsthetic If this is done shortly before the bowels act much discomfort is avoided. If after fistula operations a strip of lint spread over with the same ointment is laid along the tender skin edges much discomfort is avoided. Any tender surface of the wound can be made

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(*a*) Presidential Address delivered at the West London Medico-Chirurgical Society.

comfortable by dusting on it a little cycloform or anæsthesin powder. The same result will be obtained in the deeper parts of the would by soaking the wool used for the dressing in a saturated solution of chloretone.

The prevention of shock is a most important method of preventing discomfort after operation. A few months ago we had a female patient, æt. 50, in this hospital, whose rectum and half the sigmoid colon I removed by abdomino-perineal excision for cancer. When she left the table her pulse was 82, and the next morning the house-surgeon got a number of men to guess what operation had been done. None of them guessed anything more severe than an operation for the cure of hernia. Another female patient, over 76$\frac{3}{4}$ years of age, has lately left the hospital quite well after the same operation for the same disease. I have not heard of this operation being successful at so great an age before. These results were obtained by nerve-blocking, so that shock impulses could not pass up them from the operation area, which had been infiltrated with weak solutions of local anæsthetics before the incisions were made, "anoci-association," as it is called by Crile, who has done so much to advance our knowledge of this method. In addition, subcutaneous infusion of normal saline solution through two hollow needles was carried on almost the whole time into each side of the thorax. The skin before incision is infiltrated with 1 per cent. of urea and quinine solution, and after the skin is incised the needle is passed through the left rectus muscle in order to infiltrate the extra-peritoneal tissue underlying it. The rectus is turned outwards and the abdomen opened. The cut edges of the peritoneum are then held in forceps and drawn forwards and outwards, and the extra-peritoneal tissues all round the wound are infiltrated with the same solution. If, after examination, it is decided to go on with the operation, the infiltration of saline solution into each side of the thorax is commenced. The mesentery of whatever bowel it is decided to remove is then infiltrated with novocain solution $\frac{1}{4}$ to $\frac{1}{2}$ per cent.; this is done right down to the bottom of the pelvis and between the bowel and the sacrum. The pelvic floor is then punctured with the needle on each side and the tissues infiltrated. When the abdominal portion of the operation is completed the area of the perineal incisions is infiltrated in the same way; care is taken that the solution reaches the nerves which supply the region as near their origin as possible. This method of the preliminary use of narcotics, combined with the blocking of nerves supplying the operation area, and the infiltration of that area with weak local anæsthetics, besides preventing shock, greatly lessens the amount of general anæsthetic required and therefore lessens the discomforts following its use. Of course, in many cases, no general anæsthetic is required at all. In addition, the damage caused by a general anæsthetic to important nerve, brain and cells of other vital organs is minimised or prevented. The feeling of well-being and comfort experienced by patients after undergoing quite important operations is truly remarkable. For a long operation on a weakly patient, when a general anæsthetic is required, the administration of nitrous oxide gas and oxygen by a skilled anæsthetist is most advantageous, as the damage to the important cells I have just mentioned is practically *nil.*

Fear is an important factor in producing shock. This can to a great extent be avoided by shortening the time a patient has to wait, after the operation has once been decided upon, by not letting him see or hear any of the preparations for the event, and by letting the preparation of his own skin be as short and simple as possible. Fortunately, a preliminary painting with a solution of iodine often answers these requirements. It is also very essential that the patient does not pass restless, sleepless nights before "the day," and if such drugs as trional or acetyl-salicylic acid are not likely to ensure this, opium or omnopon should be given. Fussy friends standing about the room or whispering in corners, or behind a half-open door, or with anxious or tearful faces should be banished from the patient's surroundings, and an air of confident cheerfulness should prevail. After abdominal sections it is often impossible for the abdominal muscles to contract with sufficient force to enable intestinal gases to overcome the resistance of the sphincter, and much inconvenience results; it is often forgotten that this can be avoided to a great extent by inserting a flatus tube several times daily and leaving it in for an hour at a time. Thirst may be prevented by filling the abdomen by means of a funnel and tube with normal saline solution at a temperature of 103°, before the final closure of the peritoneum, and by giving half a pint by the rectum every three or four hours. Complaint is often made of dressings sticking to a wound. This can be prevented in clean wounds, after they have been painted with the iodine solution to prevent stitch abscesses, by laying over them about four layers of sterile white gauze, an inch wide and a little longer than the wound, and over them one layer of gauze projecting an inch all round, which is then painted all over with collodion. When the collodion has dried, further dressings can be applied if desirable and the sensation of the dressing sticking to and pulling on the wound or the stitches will be avoided. The idea that a patient after an abdominal operation must for days be kept rigidly on the back has not yet disappeared: this position when maintained for several days causes much discomfort. The cases are few where it is necessary, and a large number of them may be allowed to lie on whichever side is the more comfortable. In many cases, particularly of peritonitis, the sitting position is essential; this, combined with the constant injection of saline solution either by the rectum or subcutaneously, has pulled many patients through who otherwise would have died. The troublesome intestinal paresis present is greatly helped by the hypodermic injection of pituitary extract and of salicylate of eserine in $\frac{1}{100}$ of a grain doses, combined, if necessary, with hourly doses of 1 gr. of calomel. The planning of incisions so that abdominal muscles are split in the direction of their fibres, or turned aside without splitting, and their subsequent closure up to the drain tubes, where they are employed, by silkworm gut sutures, which are passed from the skin and can subsequently be removed, will prevent hernia, even in the majority of cases where drainage is used, and lifelong discomfort or another operation will be avoided. Much discomfort and pain is often caused by the use of buried silk sutures, which, though sterile when inserted, may months afterwards become infected by micro-organisms circulating in the blood, and lead to suppuration and sinuses which will not heal till the stitches are removed. I am convinced that this infection of the blood takes place much more frequently than many of us dream of, and that many apparently trivial conditions give rise to it, such as an infected scratch or sore on the skin, a sore throat, an alveolar abscess or sinus. Buried sutures of catgut sterilised with iodine and hardened with formalin are much less likely to be followed by these troubles, but it should be remembered that these sutures soften in time and become absorbed. In patients whose powers of repair are at a low ebb, they should be reinforced with sutures of silkworm gut, and in the abdominal wall support should be given by strapping for weeks after the superficial stitches are removed, or the wound may burst open with serious consequences. Particularly is this to be feared in elderly patients suffering from malignant disease, also in babies when the abdomen has been opened, as for intussusception. It is still the practice with some surgeons to bandage the arm to the side after removal of the breast: this is quite unnecessary, and often leads to impaired movements of the limb for months afterwards, so that the patient cannot do her back hair, which is a serious discomfort. It can be entirely avoided by keeping the arm at right angles to the body, supported by a pillow, from the time she recovers from the anæsthetic; healing of the wound is not delayed if good support is given to the flaps by strapping applied over a good thick layer of cotton-wool. After the repair of a large abdominal hernia by the aid of a silver filigree, patients sometimes complain that they cannot straighten themselves upwards without producing an unpleasant dragging sensation in the scar. This, I think, is caused by the flexed position of the trunk assumed by patients during most of the time they are in bed after the operation, and can be avoided by either keeping the trunk flat or using several shorter filigrees from above downwards instead of one long one. Much discomfort after removal of part or the whole of the tongue can be avoided if care is taken to leave flaps of mucous membrane which can be sewn together by hardened catgut, so as to completely cover in the raw area, or by bringing the remaining half of the tongue round and suturing it over the raw surface. If the mouth has been rendered as aseptic as possible previously by attending to defective teeth and gums, and due care is exercised afterwards in keeping the mouth clean and aseptic, the wounds will generally heal by practically first intention, and besides avoiding a tedious healing and its attendant risks, the stump of the tongue, if any has been left, will be quite movable and useful; speech and mastication will be much better than if the remains of the organ are bound down by cicatricial tissue.

I trust I have not wearied you by entering into somewhat small details, but none know their importance better than this Society of medical men. Had it been customary to choose a verse from the scriptures as a text for this address, I think it would have been in the "Song of Songs," chapter ii, verse 15:

> "Take us the foxes, the little foxes that spoil the vineyards."

Sir Henry Greenway Howse, Kt., M.S., D.Sc., F.R.C.S., aged 72, of Tower House, Cudham, Kent, late President of the Royal College of Surgeons, left estate valued at £30,367.

OPERATING THEATRES.

ROWLAND GARDENS HOSPITAL FOR OFFICERS.

Three Cases of Gunshot Wounds.—Mr. Swinford-Edwards operated on three cases all of which had been wounded about three weeks previously, and had been treated at the base hospital, and were all Belgian officers.

First Case.—The patient had received a bullet wound in the shoulder. An X-ray photograph had shown the bullet lying just below the head of the humerus over the bicipital groove. The healed scar about three inches long showed where the supposed bullet had been cut down upon; however, not finding it the surgeons, according to the patient's account, even cut into the bone. As there was still pain about the shoulder with loss of power, Mr. Edwards had a stereoscopic X-ray photograph taken by Sir James McKenzie Davidson, which showed a round bullet lodged in the substance of the trapezius in the posterior axillary pole. A few days afterwards Mr. Edwards cut down upon this from the posterior aspect where the bullet could be easily felt. The operation was conducted under local anæsthesia (novocaine), and the bullet removed without any trouble.

The patient left the hospital in ten days' time perfectly restored to health and all disability and discomfort having practically gone. Mr. Edwards said this case showed that the ordinary X-ray photograph in cases of bullet wounds was not only often misleading, but in many cases positively harmful, for this patient had been submitted to a quite unnecessary operation, the surgeon having been misled by the X-ray photograph. Mr. Edwards had seen the particular photograph in question, which certainly seemed to show that the bullet was in the region of the original incision, and therefore lying on the anterior surface of the humerus. The stereoscopic view, however, clearly showed the bullet where it was eventually found. He said that in his experience this was by no means the only case where mistakes had been made when relying on the usual X-ray photographs. He would, therefore, advise that a stereoscopic view should be taken when it is desired to locate bullets or projectiles of any kind.

The second case was one of bullet wound of the left shoulder, The aperture of entry was situated over the middle of the left clavicle, and that of the exit just below the acromion process. The aperture of entrance was practically healed except for a small scab; that of exit showed an irregular wound an inch and a half long and half an inch wide. There was a good deal of thickening covered with granulations which were up to the level of the skin, evidently due to callus about the clavicle, supra-clavicular fossa and acromion. A probe passed into the wound struck what was presumed to be small pieces of bare bone in more places than one. The stereoscopic X-ray photograph showed that the clavicle had been fractured, and the acromion process almost pounded into fragments, amongst which were many dark bodies, probably débris or casing of a bullet. Again, under local anæsthesia, Mr. Edwards enlarged the wound and removed several small fragments of bone and some four or five shreds of lead, the largest being about half in inch long and a quarter of an inch wide; this last was somewhat flattened and twisted.

The wound three weeks after operation is perfectly healthy and almost healed. Before the operation the patient not only complained of pain all round the shoulder, but he was unable to lift his arm from his side owing to damage done to part of the brachial plexus in the transit of the bullet through the lower part of the posterior triangle. Movement is gradually returning under electrical treatment by Dr. MacDougal.

The third case was that of a commandant with a severe bullet wound through the right wrist-joint. There was a large and ulcerated transverse wound over the palmar surface of the wrist corresponding to the lower part of the radius, and also a wound over the dorsal aspect immediately opposite the palmar wound. The wounds were very septic and discharging freely, and there was considerable œdema of the right hand. All movement caused exquisite pain. There was a rise of temperature. Boracic fomentations were ordered. The patient improved for a couple of days, but then had a severe rigor, the temperature running up to 104°; the forearm was found to be swollen, and the lymphangitis running up to the axilla. A culture was taken of the discharge and the arm at once placed in an arm bath with 1 in 6,000 sublimate solution. At the same time a strong solution of iodine was painted round the arm, forming a band just below the axilla. The patient was much better the following morning. during the next few days he received several injections of autogenous vaccine, and still continued to improve under this treatment; so much so that at the end of a fortnight he was able to sit up for a short time on one or two occasions. A week after, however, he had another rigor and rise of temperature. The swelling in the forearm had gone down though the hand remained very swollen; both the palmar and dorsal wounds, although looking much healthier, were still discharging freely, although apparently there was no communication between the two. A probe passed into the dorsal wound struck several pieces of bare bone about the lower end of the radius and the posterior row of the carpal bones. When the arm was at rest no particular pain was complained of excepting over the fifth metacarpal bone where there was an indistinct feeling of fluctuation. Concluding that drainage was not quite satisfactory the patient was placed under anæsthesia by Mr. Page, and assisted by Mr. Armour and Dr. Menzies, Mr. Edwards carried out a thorough exploration: the dorsal wound was enlarged downwards and the lower end of the radius exposed, this was found to be badly comminuted, and several exposed fragments were removed, likewise loose and carious portions of the carpal bones of the first row, the semi-lunar coming away entire. An incision was made over the fifth metacarpal bone and the first phalanx of the little finger, which gave exit to a good deal of pus which had evidently tracked down from the original lesion. Free communication was established between the dorsal and palmar wounds, and a good size drainage tube passed right through as it was felt that a further effort to save the hand should be made.

A week afterwards owing to daily hot antiseptic arm baths and careful nursing the patient is rapidly improving, and hopes are entertained that amputation, which looked almost urgent, would now be unnecessary.

TRANSACTIONS OF SOCIETIES.

MEDICAL SOCIETY OF LONDON.

SURGICAL EXPERIENCES OF THE PRESENT WAR.

[Specially Reported for this Journal.]

At the ordinary meeting of the Society, held on Monday, November 16th, Sir John Bland Sutton, President, in the chair, a very interesting discussion was held on the "Surgical Experiences of the Present War."

Before the debate commenced, the President made sympathetic reference to the recent decease of a Past-President, Mr. Charles Barrett Lockwood, the well-known St. Bartholomew Hospital Surgeon and teacher. Mr. Lockwood was a Councillor, a zealous Secretary and an able President, and the title of his presidential address, "The Strain and Stress of Modern Surgery," had proved prophetic, for the wound which he himself received and which led to his death was inflicted during an operation for septic peritonitis. The Society had lost in him a devoted Fellow, and many had to mourn a warm-hearted, sympathetic and talented friend.

The debate was opened by Sir W. Watson Cheyne, Bart., C.B., F.R.S., who referred, in the first place, to the character of the wounds hitherto met with in those who were invalided from the seat of war. In the Navy the wounds essentially always were due to portions of shell or of the breaking ship, often complicated by burns. There had been no instance as yet of bullet or shrapnel wounds in the Navy. In the case of the Army, on the other hand, a great proportion of the wounds were due to bullets which had passed through the tissues, leaving a hardly noticeable aperture of entrance and exit. These healed without special treatment. Army cases had, however, given evidence more lately of shell and shrapnel wounds—wounds too large to be scamped over, and which required serious consideration. The most noticeable feature of the present time, whether in land or sea fighting, was the great prevalence of sepsis. All the wounds which he had as yet met with at the base were septic. The Army cases also had revealed some proportion of tetanus and gangrene. So far there had been no tetanus in naval cases, which was what would be expected, seeing that these cases were not soiled with earth. Nevertheless, all the cases were septic as they reached them at the base hospital. In some cases the septicity was not so severe as to threaten the patient's life, but it was always a potential danger. There were several reasons why all the wounds reaching them from the front were, more or less, in a septic condition. The most important reason was, perhaps, the length of time which elapsed between the infliction of the injury and the beginning of treatment. Conditions in both Army and Navy were very different in this respect from those in civilian practice. In the case of the Army the wounded men were left lying where they fell, perhaps for many hours. Under the conditions of modern warfare, with a perfect hail of missiles, and the battle lasting for a very long time, it would be madness, in many instances, to attempt to pick up the wounded during the engagement, in addition to which the movement of ambulance wagons about the field would give information to the enemy. When the wounded had been collected they had to be taken a considerable distance to the temporary hospital. In the case of the Navy the conditions were also very unfavourable to the immediate treatment of wounds. The surgeons on a battleship were locked below during an action, and the wounded must lie on deck where they fell until the fight was over. Not much could be done, either, on the hospital ship, destroyers being used for the conveyance of the wounded, and only rarely was a doctor stationed on a destroyer. The chances of rendering a wound aseptic were small after 24 hours, and practically nil after 48 hours. After that time he would not make any attempt to disinfect the wound. In spite of this disadvantage with regard to time, a large number of cases did come under treatment within a suitable time, and he judged that the septicity in these cases was largely due to the fact that Lister's experience and practice were forgotten, if, indeed, they had ever been known, among many surgeons. Many, of course, took the very greatest care, but there were others who did not seem to have got a proper grip of the matter, and whose results left much to be desired. They appeared to forget the ubiquity of bacteria, and the fact that their instruments, clothing, etc., might lose their sterility during the operation. When confronted with soiled wounds such as occurred on the field of battle, many did not know how to proceed beyond painting the skin with iodine and covering the wound with a piece of gauze. Hence the results which Lister obtained with compound fractures 50 years ago were not being met with to-day.

Speaking of wounds which could be treated within the first 24 hours, the speaker referred to the very rapid multiplication of the organisms. If each organism divided in half an hour, there would be fifteen millions of them at the end of twelve hours. Thus within the first 24 hours the fluids in the wound were already teeming with actively growing bacteria. He laid it down as an axiom of practice that if treatment could be carried out within the first 24 hours, or in the case of wounds soiled with earth, 48 hours, an attempt should be made to kill the organisms which had entered the wound. Beyond that time, the procedure was useless. The attempt could only be made by means of chemical antiseptics, and the agents used must be sufficiently potent to kill the spores under whatever circumstances they were found. Mercurial salts could be left out of the reckoning, because, although they killed microbes, they were of no use when the organisms were present in oil or albuminous substances. The choice remained between carbolic acid and iodine. A saturated solution of carbolic acid—1 in 20—would kill actively growing bacteria in a few seconds, but it would not kill the spores with certainty for 12 or 15 hours. If carbolic acid was to be employed in wounds soiled with earth, it must be used in the liquefied form. For his own part, he preferred carbolic acid to iodine on certain practical grounds, although the antiseptic power of them was about equal. He would remind those who held up hands of horror at the idea of applying liquid carbolic acid to infected wounds to read Lister's early work.

Treatment.—As to the treatment of wounds after more than 24 or 48 hours had elapsed, it would possibly be well to clip away any visibly soiled tissue, but no attempt should be made at general disinfection of the wound, which was a very harmful procedure at that period, especially if suppuration had begun. Even weak antiseptics should be avoided to a great extent. The chief antiseptic he would use was peroxide of hydrogen. As the wounds came to them at the base hospitals, they were not only septic but also imperfectly drained. The necessary operative measures to effect proper draining should be done once for all. The patient having been put under an anæsthetic, the skin should be cleansed and disinfected, and if there was any gross dirt visible about the wound it should be clipped away, and the raw surface dabbed with liquid carbolic acid. The important point was to provide for the freest possible escape of discharge, and often it was necessary to enlarge the original opening, or to provide fresh openings. At this stage it was not advisable to open up fresh wounds in the deeper tissues to hunt for foreign bodies. The drainage of the wounds should be carried out with as large drainage tubes as could be used. As to dressings, aseptic dressings were not only useless but injurious. The septic discharge soaked into them and decomposed there. Antiseptic dressings were not much better, especially in large wounds where not enough antiseptic was taken up to stop decomposition. To pile dressings on the wound was only to revert to an ancient procedure which had quite properly been discarded. It was best only to lay a few layers of antiseptic gauze over the wound, and apply boracic fomentations and change them frequently. If the missile was doing harm, being present in the main wound, or causing pressure, it should be removed. Not infrequently the fragment of shell went a long distance from the main wound, became encapsuled, and did no harm. When traversing the tissues for some distance it appeared to shed its septic material.

Surgeon-General Sir ALFRED KEOGH said he had nothing of importance to add to the subject, but whatever the Society decided upon would influence the methods to be adopted in the war, both in the hospitals and at the front. There were bound to be differences on the subject of antiseptic methods, but the matter was of enormous importance to Army surgeons, who wanted to know what was the value of doses of anti-tetanic serum, as well as any advice on the treatment of wounds from the very beginning, such as could be made use of in the battlefield, and even in the trenches.

Sir RICKMAN GODLEE expressed his entire agreement with Sir Watson Cheyne's paper. In the course of a short time perhaps someone would re-discover the principles upon which Lord Lister worked. It was very sad to find how very large a proportion of the wounds in the present war were septic. He concluded by quoting the passage in Psalm xxxviii., 5, "My wounds stink and are corrupt, because of my foolishness."

Mr. ARTHUR EDMUNDS spoke of the wounds he had seen in two large naval hospitals, namely, Chatham and Devonport. The wounds there were of medium severity, and the cases with trivial wounds remained on the other side of the Channel. Sometimes severe wounds were not known at first, because the men tried to bear them. Such an one was a case of large comminuted fracture of the elbow-joint. In several cases there had been a really explosive action, in the head of the tibia and in the forearm, for instance. Most of the cases which came to Plymouth arrived in excellent condition, well fed and looked after, and so sustaining their injuries with fortitude. In the cases which came from the Heligoland Bight engagement, there was a small wound of entry, but the tissues had been ploughed up inside. Rifle wounds, however, betrayed no very obvious laceration of tissue, and needed but little treatment. He quoted excellent results in bad cases from swabbing out with pure carbolic acid. Often the removal of the bullet from the tissues was unnecessary. In some cases, though the wound of entrance had healed, there was some pus around the bullet. In one case a shrapnel bullet was wedged between ribs, surrounded by quite a little cavity of pus; and if this were not removed there was danger of spreading sepsis, and of the formation of an extra-pleural abscess. A telephone probe provided a useful means of distinguishing between bone and a metallic fragment. When the bullets were in the thick parts he favoured removal while the patient was on the X-ray couch; it often saved massive laceration and trouble, and prevented two or three searchings. In two instances he had seen excellent results follow operations performed on hospital ships. One was a case of gutter fracture of the skull, with hemiplegia, and the other an amputation for emphysematous gangrene, which had completely healed.

Sir FREDERICK EVE congratulated Sir Watson Cheyne on his address, and expressed his agreement with it. He had experience of the wounded in three different hospitals. Owing to so much fighting having been done in the trenches, wounds of the upper extremities, especially of the hands and shoulders, were very common. In one case a bullet had entered the neck, paralysed the left recurrent laryngeal, passed through the trachea, and went out above the right shoulder without injuring any important structure except the recurrent laryngeal. He spoke of some concussion effects of shrapnel, one case showing evidence of extensive degeneration of the grey matter of the cord at the level of the segment which was struck by the splinter. In one case the left parieto-occipital region was entered by shrapnel bullets, and some spicules of bone were removed by a French surgeon. Partial traumatic hemiplegia developed, a stellate fracture was exposed, but no depression, and the dura mater was uninjured. Nine weeks after the injury there was weakness of the right side of the face and of the right arm and leg, with profound loss of sensation. As there was no gross lesion of the cortex, it was fair to assume a damaging vibratory effect of the missile. He exhibited a skiagram of an explosive fracture of the femur, which had been produced by a rifle bullet at 50 yards range. These fractures healed readily. He agreed that it was not always necessary to remove the missile. Many penetrating wounds of joints had been satisfactorily treated by the insertion of a drainage tube and by irrigation. He had, in some cases of chest wounds, been much impressed by the small amount of discomfort and disturbance caused by considerable effusion of blood into the pleura; in some cases the patients walked a considerable distance after receiving the injury. He had had only one case of tetanus, and that was in one of the few cases in which anti-tetanic serum was not given, because a shortage of the serum was feared. He was a great believer in the serum, both as a prophylactic and as a remedy.

Sir WATSON CHEYNE briefly replied, as he could not be present at the adjourned meeting. He thought the men might very well carry small depositories containing either carbolic acid or iodine, to put into the wound at once and so stave off suppuration. There was a great variation in the degree of septicity of the wounds seen in this war; but in his view sepsis was bad, whether there was much of it or little, for in the latter case one never knew what it would grow to.

The debate was adjourned to November 23rd.

THE Chelsea Hospital for Women has received from the executors of the will of the late Mr. Thomas Stephen Whitaker the sum of £2,000 towards the rebuilding of the new hospital.

SPECIAL REPORTS.

ALCOHOL AND THE WAR.

The conference which took place at Caxton Hall, Westminster, on November 12th, under the chairmanship of the Archbishop of Canterbury, to consider the problem of "Alcohol in its Relation to the War," was in many ways unprecedented. Temperance has too often proved to be a subject which has been a cause of strife and controversy even among people who admittedly desire the well-being of the people. The war, however, has done much to break down the barrier, and few things are more significant than the way in which men and women of all classes and shades of opinion have been aroused to see the grave peril which faces the nation in connection with alcohol. The fact that one of the last, if not the last, appeal made by Lord Roberts was with reference to the subject of treating soldiers, and that he had intended to be present at the conference forms a strong ground of appeal. The conference, which had been convened by the Bishop of Croydon, included a number of leading members of the medical profession, the selected speakers being representative of various interests in religious, political and social life. It had been decided by those who planned the conference that questions of legislation should not be dealt with in the resolutions which were to be considered, important though this side of the question undoubtedly is, and many of the speakers referred to it, but attention was confined to what may be called the social aspects of the problem, which, in a democratic country, are of the greatest importance. Emphasis was therefore laid upon two lines of reform which are the counterpart of one another—viz., a pledge of total abstinence for the duration of the war, and a determined effort to supply the wants of soldiers, sailors and civilians for suitable recreation and refreshment, apart from temptations to drink.

The Archbishop of Canterbury, as Chairman of the meeting, referred in some detail to the reports which had been received of intemperance both among soldiers in training and also among their dependants. He did not feel that the blame attached so much to those who had fallen into this temptation, but to those who had placed temptation in their way or who failed to hold out the helping hand to those who particularly needed help. He believed that the situation could best be met by the wide adoption of a pledge of total abstinence for the period of the war, a view he had already expressed in a letter to the *Times*. By this act of self-denial those at home could show their sympathy with those at the front.

The first resolution recognised that as a result of the war there had been a grave increase of intemperance, and pledged the members of the conference strongly to support Lord Kitchener's appeal on this matter.

The late Lord Roberts had signified his intention of being present, and had been invited to propose this resolution, but he wrote a letter explaining that as he was going to France to see the Indian troops he could not be present. His place was therefore taken by Sir Clifford Allbutt, who bore testimony to the good behaviour of the troops quartered at Cambridge; at the same time he fully recognised the importance of the matter and stated that science had made it clear that healthy people are all as well or better without alcohol as with it. He referred to the theory, wrongly included under the head of Darwinism, that the evil would settle itself when those who have cravings for alcohol have been eliminated. He contended that the problem of to-day was not so much one affecting individuals as communities. If we wanted to see a strong community we must get rid of class distinction and seek to help one another, and especially the dependants of those who were serving their country in the war. The public houses had unfortunately been for many the only place of social gathering, and it was most important that counter attractions should be provided.

Cardinal Bourne, in seconding this resolution, fully corroborated the Archbishop's statement as to the dangers of the day in relation to alcohol, which he attributed to the fact that emotions were unduly excited in the case of those leaving home to go to posts of peril and those who were left behind in distress and anxiety. He advocated further restrictions in the hours of opening public houses.

Sir Thomas Barlow then proposed the second resolution, which recommended the general adoption of the suggestion that people of all classes should join in a pledge of total abstinence during the continuance of the war. Seeing that the resolution proposed a pledge of total abstinence for men in the services and civilians at home, he dealt with a difficulty felt by some as to the possibility of pure water being obtained by the troops, and he said that having carefully inquired into this subject he was assured that by the excellent sanitary system initiated by the Army Medical Department there would be no difficulty of this kind. He also alluded to the system of sterilising water by the use of chloride of lime, advocated by Professor Sims Woodhead, which he considered to be satisfactory. After referring to the subject of sexual disease, nine-tenths of which were believed to be mainly the result of alcoholism, he said that if we want to send our boys across the Channel without any disability we must stop alcoholism. He had been told that when the German regiments first started out their behaviour was all that could be desired, but when they had been in the wine cellars then we had the devilry, the lust, cruelty and pillaging which had taken place.

He desired to emphasise the fact that the evil was an insidious one, and must be resolutely met by getting public authorities to do their duty by providing counter attractions and promoting a true sense of brotherhood, and particularly by renouncing the use of alcohol for the sake of others.

The Rev. J. Clifford, D.D., seconded the motion in an eloquent speech pointing out how many of the troops were already total abstainers, including a very large proportion of the Indian troops.

Major Leonard Darwin proposed the third resolution, which stated that "Immediate steps should be taken in every locality to secure that proper provision be made for the supply of proper places of recreation and refreshment, both for men and for women, where there would be no temptations to drink," and also urged the carrying into effect by local authorities of the Temporary Restrictions Act, 1914. Speaking as an old soldier, he said that we must never forget that we are fighting the most stupendous war that has ever taken place, and there must be no loss of time during training which would be inevitably caused by drinking bouts, which not only affected the man himself, but his unit. He considered that drink was followed by worse consequences —viz., immorality and disease accompanying it, which might lead to hospitals needed for the wounded being choked by cases of sexual disease. He urged that strong action should be taken to deal with this matter both by legislative and other means, and made a strong appeal for suitable means of recreation. He said that we had in the past been wont to think ourselves vastly superior to our Russian allies; now we had to admit their great superiority in this matter of temperance during war time. He hoped that all would rise to the occasion and fight with all their power against every cause of national deterioration.

A fourth resolution determined that a manifesto should be drawn up embodying the principal resolutions, and that this should be sent to the Lord Mayors and Mayors, urging them to take the lead in carrying out the proposals. All the resolutions were carried unanimously

CORRESPONDENCE.

FROM OUR SPECIAL CORRESPONDENTS AT HOME.

SCOTLAND.

Wounded Soldiers in Edinburgh.

During the past week a number of trainloads of wounded have arrived in Edinburgh, and have been received in the military hospital at Craigleith, the

Infirmary, the Deaconess Hospital, Leith Hospital, and other institutions. It is a tribute to the efficiency of the British transport service that in some cases barely 48 hours elapses between a soldier's sustaining a wound in Flanders and his reception into the wards of the Royal Infirmary.

St. Andrew's Ambulance Association.

Although this is primarily a civil Red Cross Association for time of peace, its operations are of value in time of war, and at the annual meeting of the Edinburgh Executive, Lieut.-Col. J. M. Cotterill, F.R.C.S., who presided, gave some particulars of both these branches of work. During the past year 94 classes were held, and 1,743 persons passed examinations, receiving certificates, medallions, and re-examination vouchers for the first, second and third year of work respectively. Though it bulked less in the public interest than the Red Cross, it should be remembered that the Scottish branch of the Red Cross had been originally organised by their Association, notably the late Secretary, Colonel Barnes. Under arrangement with the War Office, they had for a number of years maintained from members of their ambulance corps a body of men who acted as reserve personnel for the Scottish home military hospitals. On the outbreak of war these men were mobilised in 48 hours, and relieved the regular forces for service abroad. They had also mobilised 100 trained ambulance men for service at the front, had supplied orderlies to the various general hospitals, and had placed their waggons at the disposal of the naval and military authorities. Financially, they had a credit balance of £853, and in view of the amount of work to be done they appealed for substantial contributions to increase this.

Graduation at Glasgow University.

The usual graduation ceremony took place on the 14th inst., Principal Sir Donald Macalister presiding. A considerable number of members of the Officers' Training Corps were present in uniform, and some of the graduates who were capped were in khaki, having joined Lord Kitchener's new army. Of those who took the degree of M.D., Messrs. George. H. Clark, William Macadam, John W. McNee, John B. Orr, and Wm. D. H. Stevenson graduated with honours, and Messrs. David R. Adams, Wm. B. Brownlie, and Albert W. Gregorson with commendation.

Arrival of Wounded at Ayr.

The first party of wounded soldiers arriving at Ayr did so on the 14th inst., and were accommodated at Ayr Red Cross Hospital, better known locally as Carrick House. The party numbered seventeen (now followed by another batch) and of these fourteen are wounded Belgian soldiers. These patients are mostly convalescent. The hospital is a comparatively small one, designed to relieve the Glasgow hospitals somewhat.

Auxiliary Hospitals and Convalescent Homes.

The distribution of wounded to auxiliary hospitals and convalescent homes in Scotland, which was under the charge of Major Tudor Craig and the Central Registry, has now been entrusted to the Scottish branch of the British Red Cross Society. The military authorities have also announced that wounded will only be sent to auxiliary hospitals and convalescent homes which have obtained the sanction of this Society through its Executive, and have been approved on examination by the military authorities. No grants are allowed by the military authorities for patients sent to convalescent homes. The Executive of the Society is prepared to consider applications from any recognised institutions, whether auxiliary hospitals or convalescent homes, for financial assistance.

Dentists and the Army.

A requisition has been presented to the Royal Faculty of Physicians and Surgeons of Glasgow by candidates for a qualification in dentistry, some of whom are anxious to serve in His Majesty's Forces. The Faculty is asked to hold a special dental examination in view of the war. In response to the requisition an examination will be held, beginning on Tuesday, January 12th, which will be limited to candidates who are qualified to sit for the final examination.

The Prohibition of Drink.

The Corporation of Glasgow has adopted, by a majority of nearly two to one, a motion respectfully urging the Government to consider the desirability of passing in the present session of Parliament a measure prohibiting the sale of intoxicating liquors during the continuance of the war, and on the passing of such an act to appoint a Commission to watch its operations, report results to Parliament, and make recommendations regarding the equitable treatment of those directly affected by the measure.

LETTERS TO THE EDITOR.

[We do not hold ourselves responsible for the opinions expressed by our Correspondents.]

THE OPHTHALMOSCOPE IN GENERAL AND MEDICAL PRACTICE.

To the Editor of The Medical Press and Circular.

Sir,—I have seen Dr. Hawthorne's contributions on the above subject from time to time in the medical papers.

Apparently it has not dawned on many teachers in medical schools how the use of the various "Scopes" has become practicable in the houses of even the working classes through the general use of incandescent gas and electric lighting, while at the same time 79 per cent. population reside in towns.

Further, there has been the development of the pocket electric flash light, used everywhere. For the "direct" method with the "Morton" ophthalmoscope, the ordinary 2½ volt pocket light held near the patient's temple does well, practically as well as the so-called "self-luminous electric ophthalmoscope," while there is no trouble with special lamps, batteries, cords, etc.

The 2½ volt. pocket light used, being of low candle power, must be lens-fronted to concentrate the small "amount" of light. It is not, however, strong enough for "indirect" mirror and lens work, and a heavier battery would be troublesome to carry.

For the direct method with the incandescent mantle light an even simpler plan does well for viewing the disc. A smal plane mirror (Babbage's orginal) the size of a glass "slide," sold in "small ware" shops for a few pence with a "peep-hole" scratched in the form of a line and about one-eighth inch wide or crossed in addition by another at the end of the mirror, does well with the incandescent light, even with the light several feet away, and can also be used with the flash light, but is a little more difficult to use with the latter. Of course, there is not a battery of lenses behind the peep-hole for anomalous refraction, but it is wonderful how efficient this simple bit of mirror is with the strong incandescent light.

The point in mirrors for "direct" work is that the peep-hole or slit should be lengthened in the direction of the tilt so that the rays may more readily return from the illuminated fundus to the observer's eye. This is effected in the "luminous" ophthalmoscope by the horseshoe-shaped mirror and is a want in the ordinary ophthalmoscope where the "tunnel" obstructs returning light and reflects from its upper edge, making it more difficult to use. I think I have said enough to endorse Dr. Hawthorne's plea (Medical Press and Circular, November 11th) for the more general use of "scopes" in everyday work under modern lighting conditions.

I am, Sir, yours truly,
James Cameron, M.D., etc.

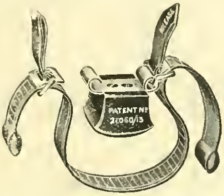
Edinburgh,
November 18th, 1914.

AN IMPROVED TOURNIQUET FOR AMBULANCE WORK.

To the Editor of The Medical Press and Circular.

Sir,—For some time past in connection with ambulance work, the need has been felt for a more efficient form of tourniquet than those in general use—*i.e.*, the "india rubber" or the "pad and strap" varieties, the drawbacks being, in the case of the former, the rubber soon perishes, and such appliances are therefore unreliable, also that when applied the circulation of the limb is completely restricted. In the case of the latter there are three distinct weaknesses—(1) when the strap is tightened the pad is pulled out of place, owing to pressure being exerted on one side of the "pad" or "block" only; (2) owing to the means to secure the appliance being a spiked buckle, some relaxation of the band takes place, and it is difficult to remove or adjust; and (3) the strap being pierced by the buckle spikes, is weakened and soon wears out.

Messrs. James L. Hatrick and Co., of 70 St. John Street, Clerkenwell, have made for me a tourniquet which overcomes all these drawbacks, and possesses many other advantages which are absent in other tourniquets. It is known as the "Western," and consists of a pad, or block of vulcanite (or other suitable material) which is affixed to a metal plate, one end of which forms an "eye," and the other an open hook. To the eye is permanently attached a special form of spikeless buckle, and a similar detachable buckle engages over the hook of the metal plate when the instrument is in use. Through the two runs the strap of the tourniquet, which consists of two lengths of webbing placed one over the other and stitched across at frequent intervals, the ends of the webbing being thickened so that it cannot be detached from the buckles. To apply the tourniquet, the loose clip is removed from the hook, the block is placed in position, the strap is passed round the limb, the loose clip replaced over the hook, Pressure is then exerted on both ends of the strap, and the block is forced *directly downwards*, the strap automatically holding at the point of greatest pressure. To remove the tourniquet, the release tongues (marked) are pulled with an upward motion, when pressure is instantaneously relaxed. An additional lock is provided, for use only in cases in which a patient may have to be transported a considerable distance, and possibly loaded and unloaded *en route*. This is secured by inserting pencils (or anything similar) through the loops formed by the two lengths of webbing composing the strap, immediately outside the clips, when the tourniquet is in position. When this is done, the appliance is secured, even if the release tongues should be inadvertently pulled.



I am, Sir, yours truly,
J. M. Carvell, M.R.C.S.

31 Avonmore Road,
West Kensington.

PROFESSIONAL WORK AND TRADING FIRMS.

To the Editor of The Medical Press and Circular.

Sir,—You have frequently raised a voice in protest against the action of certain trading firms which, as a side-line, undertake work usually regarded as properly that of members of the medical profession. It appears to me that when firms are carried on for the specific purpose of undertaking work of this sort the evil is even greater.

I have just received a letter emanating from a London firm styled "The Wassermann Institute," whose business is to perform the Wassermann test on specimens of blood submitted by medical men. ("We work exclusively for the medical profession," we are assured.) The Institute is in such a flourishing condition, owing to its rapidly increasing "clientèle of medical practitioners," that the fee for examination is reduced from "the already low figure of 15s. per examination to 12s. 6d." It appears to me that the performance of the Wassermann test, like the operation of amputation, should be in the hands of qualified medical men.

The most interesting statement in the letter is to follow—"Our Institute is supervised by one of the most prominent specialists in venereal diseases in London." It would be even more interesting to know who is the prominent specialist. His conduct approaches closely to covering unqualified practice, and is, I submit, "infamous in a professional respect." Perhaps one of the defence unions would take up the investigation of this and similar cases?

I am, Sir, yours truly,
Clinical Pathologist.

CONTINUOUS ANTISEPTIC INHALATION.

To the Editor of The Medical Press and Circular.

Sir,—I read with great interest your comments on some experiments carried out by Messrs. Kingzett and Woodcock on antiseptic inhalation (Medical Press, November 4th). As early as 1899, to test the value of the germicidal properties of formaldehyde, I made similar experiments which were briefly reported at the London Tuberculosis Congress, 1901. And since that time I extended my observations on other antiseptic drugs, such as iodine, guaiacol, pine, terebene, etc. As you rightly say, cultural experiments have not much value in themselves unless supported by clinical experience. During the last fifteen years I have treated more than a thousand cases of pulmonary tuberculosis by antiseptic inhalations, and this long experience has made me a firm and enthusiastic believer in the efficacy of this method of treatment in preference to any others in vogue at the present day. In some cases of consumption continuous inhalation acts almost as a specific. If I had space I could give case after case which got well, even in the second and early third stages of the disease. The results of the inhalation treatment up till 1912 (which was embodied in my paper read at the annual meeting of the British Medical Association, 1913) have given us an average of 50 per cent of cases of recovery. Besides pulmonary tuberculosis, I have obtained good results in bronchiectasis, chronic bronchitis, asthma, etc. The inhalation acts as a charm in commencing colds and catarrh of the nose and throat. For the benefit of your readers I give herewith the formulæ of the solutions we use:—

A.—Formaldehyde, 2½ per cent.; chloroform, 1 dr.; menthol, 10 gr.; ol. pini pumilin, 10 min.; spt. vin. rect. ad 1 oz.

B.—Formaldehyde, 5 per cent.; guaiacol, 1 dr.; chloroform, 2 dr.; menthol, 10 gr.; ol. pini pumelin, 15 min.; spt. vin. rect. ad 1 oz.

C.—Guaiacol, 2 dr.; terebene, 1 dr.; menthol, 15 gr.; ol. pini pumilin, 15 gr.; chloroform, 2 dr.; spt. vin. rect. ad 1 oz.

D.—Guaiacol, 2 dr.; iodine, 1 dr.; terebene, 1 dr.; ol. pini pumelin, 15 min.; chloroform, 2 dr.; spt. vin. rect. ad 1 oz.

N.B.—About ten drops to be sprinkled on the inhaler (which I have devised) about every half to one hour. As formalin contains more than 50 per cent. water, formaldehyde is conveyed into the inhalants in the form of gas (to make them more volatile) by the manufacturers, Messrs. Oppenheimer, Son and Co., London, who also supply the inhalers. Patients have here a choice of four pleasant mixtures. Beginning with A, they go on to B, C and D, and return to B, C or D. The D solution is more often employed in cavity cases and for night use. Those who cannot tolerate A or B substitute C and D alternately. The value of the inhalation treatment depends upon the volatility of the solutions used, upon sufficient entry of air into the inhaler, and, most of all, upon its continuous use. Every patient that was cured carried out the treatment perseveringly day and night. Herein lies very largely the secret of its success.

I am, Sir, yours truly,
C. Muthu, M.D.

Mendip Hills Sanatorium, Wells,
November 20th, 1914.

TEMPLE OF ÆSCULAPIUS.

To the Editor of The Medical Press and Circular.

Sir,—In thanking Dr. Caton for his reply to my letter, permit me to add that the inscription upon the tablet is in English as I gave it, and is consequently modern. What I sought information about was the source of the *ipsum corpus* of the marble; whether from a Temple of Apollo or from one of Æsculapius. Looking to the hands through whom it came to me, I should consider it a genuine fragment of antiquity. I am obliged to Dr. Caton for his information and his opinion that "Temple of Æsculapius" is probably correct, or at least that there was probably a temple of that deity at Cyrene.

I am, Sir, yours truly,
Inquirer.

Glasgow, November 20th.

OBITUARY.

ANGUS MacNAB, M.B., Ch.B.Edin., F.R.C.S.

We have learned with great regret of the death of circles in London for the loss at the front of this well-known and accomplished ophthalmic surgeon. A captain in the Territorial regiment of the London Scottish, he was attending to some wounded men during their famous charge; while so engaged, and while bending over a man, whose wound he was dressing, a Bavarian Hun killed him with a bayonet. Captain MacNab was unarmed; moreover, as an eye witness has testified, he was conspicuously a Red Cross officer. He was, therefore, infamously murdered—and became another victim to that great German "culture," of which we hope the world will soon hear the end. Captain MacNab had a varied university career, having been a member of the universities of Edinburgh, Otago, Freiburg and Vienna. At the time of his death he held the appointment of ophthalmic surgeon to King Edward the Seventh's Hospital at Windsor. He was also a chief clinical assistant at the Royal London Ophthalmic Hospital, as well as a clinical assistant in the ophthalmic department at Charing Cross Hospital. Among his other accomplishments he possessed an intimate knowledge of the German language, becoming especially known for his masterly translation of Auenfeld's "Bacteriology of the Eye." As late as September 24th last, a paper appeared by him in a contemporary. Thus has ophthalmology lost a skilled surgeon, a man of high education, one whose devotion to his adopted specialty had marked him out as destined to accomplish much useful work.

DR. BURNEY YEO.

We regret to announce the death of Dr. J. Burney Yeo, M.D., F.R.C.P.Lond., Emeritus Professor of Medicine at King's College, London, which took place suddenly on the 20th inst. a 8 Cadogan Place, S.W. The deceased was educated at King's College, London, qualifying M.B.Lond. in 1868. He became F.R.C.P.Lond. in 1876. He was long identified with the medical staff of King's College Hospital and Medical School, in which he was Senior Medical Scholar, Resident Medical Tutor, and subsequently Physician, Fellow of the College and Consulting Physician. He was also attached to the Brompton Hospital for Consumption, where he held the office of Physician for ten years. Dr. Yeo was Consulting Physician to the Westminster General Dispensary and to the Life Association of Scotland His well-known text book "A Manual of Medical Treatment," in two volumes, only attained a new edition last year, and his work on "Food in Health and Disease" was almost as popular with students and practitioners. He was also a contributor to the medical journals of many interesting papers.

CAPT. CHARLES PAGET O'BRIEN BUTLER, R.A.M.C.

One of the most popular men in the Royal Army Medical Corps was Captain O'Brien Butler, who has recently died of wounds received in action. He was educated in Dublin, and received the licences of the Royal Colleges in 1905. Both during his student career and for some years afterward he was the best known amateur rider in Ireland. Few meetings passed at which he did not ride one or more winners. He rode also both in England and on the Continent. On going to India, he speedily became one of the best-known riders there. On the eve of his departure with the Expeditionary Force he rode at the Galway Races this year. Those who saw him there little thought as he said farewell that they would not see him again. No man in racing circles was more popular, and none had a better reputation as a straight and daring rider.

DR. PETER G. MORAN, TARA.

We have learned with great regret of the death of Dr. Peter Moran, of Tara, at the early age of 39. He contracted pneumonia ten days ago, and died after a few days' illness. Moran was a native of Co. Meath, and was educated at the Catholic University School, Dublin, taking his medical degrees at the Royal University in 1901. He served in the South African War as a Civil Surgeon. Some seven years ago he was elected to the Killeen Dispensary District in succession to the late Dr. Patrick Laffan. Moran was very successful in his practice. He was respected by everyone in his district, rich and poor, and he was held in deep affection by his medical colleagues. The medical profession is the poorer by the loss of a capable, industrious, high-minded practitioner. He leaves a young widow and three children, to whom the full sympathy of the community go out in their sorrow.

MEDICAL NEWS & PASS LISTS.

Belgian Medical Relief Fund—Meeting in Dublin.

An appeal by Professor Jacobs, of Brussels, on behalf of the medical profession of Belgium, having been received by the Royal Colleges of Physicians and Surgeons in Ireland, on the invitation of the Presidents of the Colleges, a general meeting of the medical profession in Dublin was held in the Royal College of Physicians last Friday, to consider how best to support this appeal, and to extend to the medical men of Belgium not only the sympathy, but the practical assistance, of their colleagues in this country.

The President of the Royal College of Physicians occupied the chair.

Dr. Kirkpatrick, Hon. Secretary to the meeting, announced that he had received a number of letters expressing sympathy with the object of the meeting, and regret at the inability of the writers to attend.

The following resolution was proposed by the President of the Royal College of Surgeons, seconded by Dr. James Little, and carried unanimously:—"That this meeting, representative of the medical profession in Dublin, has heard with deep sorrow of the ruin in which the war has enveloped their colleagues—the medical men of the Kingdom of Belgium. While expressing to the Belgian doctors the heartfelt sympathy of the profession in Ireland, we desire to give to them also our practical support and assistance in this time of their dire need."

The Vice-President of the Royal College of Physicians proposed, and the Vice-President of the Royal College of Surgeons seconded, that the following should be appointed a committee, with power to add to their number, to carry out the purposes of this meeting by collecting subscriptions and distributing the money so collected towards the relief of the medical profession in Belgium:—The President Royal College of Physicians of Ireland, the President Royal College of Surgeons in Ireland, the Vice-President R.C.P.I., the Vice-President R.C.S.I., Right Hon. M. F. Cox, M.D., Sir Charles B. Ball, Bart., Regius Professor of Surgery; Sir Charles Cameron, Secretary and F.R.C.S.I., Hon. F.R.C.P.I.; Sir Arthur Chance, F.R.C.S.I. and Hon. F.R.C.P.I.; Denis Coffey, M.D., President University College, Dublin; J. Magee Finny, F.R.C.P.I.; Charles E. FitzGerald, F.R.C.P.I.; Sir

Andrew Horne, F.R.C.P.I.; Sir John Lentaigne, F.R.C.S.I.; James A. Lindsay, M.D., Professor of Medicine, Queen's University, Belfast; James Little, Regius Professor of Physic; Sir John Moore, F.R.C.P.I.; Sir Thomas Myles, F.R.C.S.I.; Richard D. Purefoy, F.R.C.S.I.; Walter G. Smith, M.D., President Royal Academy of Medicine; Sir Robert H. Woods, F.R.C.S.I.; William M'D. A. Wright, M.D.; Hon. Secretaries: T. Percy C. Kirkpatrick, Registrar, R.C.P.I.; C. M. Benson, Secretary to Council, R.C.S.I.

The resolution was carried. Subscriptions and promises amounting to nearly £200 were received at the meeting.

The Royal College of Surgeons of England.

The 30th annual meeting of the Royal College of Surgeons of England was held at the College on November 19th, Sir Watson Cheyne, Bart., C.B., the President, in the chair. Among the business it was pointed out that the attention of the Council had been directed to the desire of medical officers of health under the Local Government Board to secure "fixity of tenure" and some definite system of superannuation and pensions. The Council had been asked to support the endeavour which is now being made to bring this matter under the consideration of the Government. The President also referred to the National Insurance Act, and stated that much dissatisfaction has been felt by medical men with regard to the employment of non-qualified persons for the purpose of medical treatment under the Act. A letter of protest has been sent to the National Health Insurance Commission on behalf of the College. It was announced that the number of the various diplomas issued by the College during the past collegiate year showed a marked increase upon that of the previous year.

The following resolution was moved by Sir Victor Horsley, seconded by Mr. George Jones, and carried:—"That this thirtieth annual meeting of Fellows and members again affirms the desirability of admitting members to direct representation on the Council of the College, which, as now constituted, only represents those members who also hold the Fellowship; and that it does so in order that the constitution of the Council of the Royal College of Surgeons of England shall be in keeping with modern ideas of true representation."

Action against Governors of Rotunda Hospital.

In Nisi Prius Court No. 1 last week, before the Lord Chief Justice and a city special jury, the trial concluded of the action Volkl *v.* the Governors and the Guardians of the Rotunda Hospital. The action was brought by Mrs. Ethel Volkl, the wife of an Austrian waiter, to recover damages for personal injuries which she alleged she sustained while being a paying patient in the Rotunda Hospital. She alleged that owing to the negligence of the defendants she was burned by an unduly heated and unprotected water jar, and, as a result, she suffered great pain, and incurred considerable expense. The defendants denied negligence, and contended that the injuries were caused by the plaintiff herself by removing a flannel covering from the jar.

The jury, after a lengthy consideration, failed to agree, and were discharged.

University of London.

The following have obtained honours in the third (M.B., B.S.) Examination:—

R. A. Rowlands, distinguished in Medicine, London Hospital; D. H. D. Wooderson, B.Sc., distinguished in medicine, midwifery, and diseases of women, St. Bartholomew's.

University of Cambridge.

At a Congregation held on November 21st, the following degrees were conferred:—

M.D.—L. M. Routh, Caius (by proxy); C. Mackenzie, Emmanuel (by proxy).

M.B.—J. Deighton, Trinity (by proxy).

Society of Apothecaries of London.

The following candidates having passed the necessary examinations, have been granted the L.S.A. diploma of the Society, entitling them to practise medicine, surgery and midwifery:—J. C. P. Bayley, W. Brown, C. H. Fischel, G. F. Malden, and H. R. Partridge.

Glasgow University.

At the graduation ceremony held last week, the following degrees were conferred:—

Doctors of Medicine (M.D.), with Honours.—George Herbert Clark, M.B., Ch.B.; Wm. MacAdam, M.A., B.Sc., M.B., Ch.B.; John William M'Nee, M.B., Ch.B.; John Boyd Orr, M.A., B.Sc., M.B., Ch.B.; William David Henderson Stevenson, M.A., M.B., Ch.B.

M.D., with Commendation.—David Rutherford Adams, M.B., Ch.B.; William Barrie Brownlie, M.B., Ch.B.; Albert William Gregorson, M.B., Ch.B.

Ordinary M.D. Degree.—John Ewing Adam, M.B., C.M.; Gertrude Jane Campbell, M.B., Ch.B.; James Alphonsus Joseph Conway, M.B., Ch.B.; Robert Douglas, M.A., M.B., Ch.B.; Gilbert Garrey, M.B., Ch.B.; Alexander Gibson Henderson, M.B., Ch.B.; William Johnstone, M.B., Ch.B.; John Wilson Mathie, M.B., C.M.; Henry Joseph Milligan, M.B., Ch.B.; Frank Anderson Murray, M.B., Ch.B.; William Seaton Paterson, M.B., C.M.; William Wallace, M.A., M.B., C.M.

The Public Health was awarded to Joseph R. Sutherland, M.B., Ch.B.

Army Medical Service.

The following have been appointed:—

W. T. Lister, M.B., F.R.C.S., to be temporary Colonel (November 10th).

W. A. Chapple, M.D., to be temporary Major (November 10th); Supernumerary Captain G. A. D. Harvey is restored to establishment (November 15th); the name of temporary Captain C. Nitch is as now stated, and not as described in *Gazette* of November 6th. To be temporary Lieutenants:—S. A. Tucker, M.B., J. M. Bernstein, M.B., M. Culpin, M.B., F.R.C.S. (November 6th); J. T. McCullagh, M.B., A. J. Couper, M.B., G. W. Clark, M.B., H. M. Moir, M.B., E. P. Evans, M.D., C. Yorke, M.D., F.R.C.S., L. T. Dean, M.B., H. V. Swindale, J. Stevenson, M.B. (November 7th); R. J. Hearn, H. S. Forsdike, M.D., E. S. Hawthorne, F.R.C.S.I., A. K. Forbes, M.B., I. J. Williams, M.D., A. L. Walker, M.B., F.R.C.S., H. R. S. Van R. de Groot, G. F. Petrie, M.D., H. G. M. Henry, M.D. (November 9th); F. E. Wynne, M.B., G. W. Mitchell, T. M. Newton, M.B., L. Crombie, M.B., S. J. Cullum, M.D., J. D. Yule, M.B., J. H. Dancy, R. C. Robertson, M.B., A. E. Cotterill, A. H. James, C. W. Smith, M.B., F.R.C.S., R. Craig, M.B., J. L. Menzies, M.B. (November 10th); H. M. Cockcroft, A. Gilmour, M.D., J. McManus, B. A. West, M.D. (November 11th); A. W. Young, M.D., F.R.C.S. (November 12th); J. Tewkesbury to be temporary Quartermaster, with hon. rank of Lieutenant (November 11th); P. Sargent, M.B., F.R.C.S., to be temporary Captain (November 5th); temporary Lieutenants: J. C. Anderson, M.D. (October 24th); L. Cassidy, M.B., F.R.C.S.I. (October 28th); D. McKelvey, M.B. (November 1st; H. B. White, M.D., S. Jacob (November 2nd); W. F. Neil, M.B., G. W. Maw, A. R. Muir, W. B. Clark, M.B., T. S. G. Martin, G. H. U. Corbett, M.B., A. Hunter, M.B., C. Powell, M.B., (November 4th); R. H. Cooper, S. McM. McLay, M.B., S. R. Douglas (November 5th).

A special hospital is being established in Paris for wounded Colonial soldiers, who are now scattered in various establishments. It is pointed out that these men, generally natives of Morocco or the heart of Africa, separated from those who speak their language, and not knowing how to write to their friends in their own country, suffer loneliness and *ennui*, which may prove detrimental to their convalescence.

We are requested to announce that all letters, telegrams, and other communications intended for the British medical men and nurses attached to the various units in Serbia should be directly addressed to Nish and not to the Serbian Legation in London.

SUMMARY OF RECENT MEDICAL LITERATURE ENGLISH AND FOREIGN.

Specially compiled for The Medical Press and Circular.

Polypoid Chondrofibroma of the Fallopian Tube, associated with Tubal Pregnancy.—Outerbridge (*Amer. Jnl. Obs.*, lxx., 2) reports a case of this condition in a tube removed on account of an early tubal pregnancy. A small papillary growth was found almost filling the lumen, just proximal to the placental area. Microscopically, the tumour showed a somewhat degenerated fibroma covered on the surface by tubal epithelium and containing extensive areas of interstitial hæmorrhage, small areas of fatty degeneration, and an island of hyaline cartilage. No connection was found between the tumour and the tube wall, but there probably was a small pedicle. The growth appeared essentially a fibroma, and not an embryonic mixed tumour. It seemed quite possible that the tumour blocked the lumen of the tube near the uterine end and may have been the factor in the arrest of the ovum and consequent tubal pregnancy. F.

Cæsarean Section necessitated by Pelvic Chondro-Sarcoma.—Nathan (*Amer Jnl. Obs.*, lxx., 2) reports a case in a woman, æt. 23. She was confined normally a year previously, and at the time of labour with her second pregnancy the pelvis was found obstructed by a sessile growth springing from the left side, which necessitated Cæsarean section. Subsequently the tumour increased and was removed, and its nature was demonstrated, as typical hyaline cartilage. The growth was solid, irregularly rounded, encapsulated, and lobulated. Two months later there was a recurrence, which was removed twelve months after the first operation. The growth has since recurred with a more extensive area of attachment, and also enlargement of the inguinal glands. The history of the case with the appearance of the growth is considered to justify the diagnosis of chondro-sarcoma. F.

Experimental Ligation of One Ureter.—Jones (*Amer. Jnl. Obs.*, lxx., 3) reports the results of experimental ligation of the ureter performed fifty-two times in dogs, together with observations upon a case of probable ureteral obstruction by accident, and concludes from the results that during the first ten days after complete occlusion the gross changes are not marked. A slight hydronephrosis is practically the only lesion found. From the tenth to the sixtieth day there is a primary hydronephrosis with no general renal atrophies. After this the kidneys undergo one of two changes—they continue to enlarge, or they undergo atrophy. Prior to the 6oth day there is some indication of this division, some kidneys showing shrinking, others becoming markedly cystic. More or less gross evidence of intra-renal infection is almost constant after the tenth day. If this is mild, general atrophy takes place; if severe, pyonephrosis with renal dilatation. The less the infection the more prompt and general the renal shrinkage and fibrosis. All evidence points to hæmatogenic origin of infection. There is evidence that low ligations are more prone to be followed by atrophy than high ones. This is explained by the ureter dilating and so acting to reduce immediate pressure upon the kidney. Only rarely did the contents appear to be under pressure, and this was found usually within a few days after ligation, or later with considerable infection. The morbidity and mortality are not high; they are chiefly due to severe infection. The writer states that the ureter is probably injured in 1 to 3 per cent of all intra-peritoneal operations upon the female pelvic organs, and is more common in operations by the vaginal route. The varieties of injury in order of frequency are: ligation, clamping, kinking, incision, resection, destruction of blood supply; and the results: infections, 15 per cent., fistula 24 per cent., hydronephrosis 80 per cent., general renal atrophy under 20 per cent., toxæmia very rare, anuria 1.6 per cent, no symptoms 21 per cent. The mortality of unilateral obstruction is 18 per cent. The ureteral catheter is the most important means of diagnosis. Intentional ligation may be indicated in irreparable injuries of the ureter, and if no serious symptoms arise nothing further need be done. F.

Rupture of Corpus Luteum with Intra-Abdominal Hæmorrhage.—Bookman (*Amer. Jnl. Obs.*, lxx., 3) reports a case in which, following vomiting and symptoms of an attack of appendicitis, there were symptoms of internal bleeding, and upon opening the abdomen a large quantity of free blood was found; both tubes and the left ovary were normal, and the evident site of the hæmorrhage was a ruptured Graafian follicle. He concludes that suddenly increased intra-abdominal pressure may rupture a forming corpus luteum, which may cause laceration and bleeding. Cases of hæmorrhage due to this cause are frequently mistaken for ectopic pregnancy or appendicitis, and should be considered in cases having pelvic pain, signs of hæmorrhage, and near the menstrual period. The treatment depends upon the severity of the symptoms. F.

Traumatic Endocarditis.—Webber (*Boston Med. and Surg. Journ.*, October 1st, 1914) discusses the influence of traumatism in the production of endocarditis. Severe lesions of the heart are well known to follow from external violence, but the influence of less severe injuries has been much overlooked. Webber records the case of a boy who received a blow on the chest as the result of a fall from a cart. The injury resulted in the separation of the upper epiphysis of the humerus. Some two months after the accident the boy complained of pain in the chest and was dizzy, but there were at that time no definite physical signs of cardiac abnormality. When seen again about three years later there was a distinct double murmur audible in the aortic area of the heart, and the boy presented the symptoms of chronic valvular disease of the semilunar valve of the aorta. There was no history of any disease to account for the endocarditis, and Webber believes that it was due to the injury. Webber records several other such cases from the writings of other practitioners. K.

The Intraspinous Use of Salvarsanised Serum.—McClure (*Boston Med. and Surg. Journ.*, October 1st, 1914) records his experience of the treatment of cerebro-spinal syphilis by this method. In four cases under treatment with intravenous injections of salvarsan, mercurial inunctions, and the intraspinous use of salvarsanised serum, there has been observed improvement in the subjective and objective symptoms. With this improvement there has occurred a diminution in the cell count, the proteid content, and the strength of the Wassermann reaction in the cerebro-spinal fluid. The Wassermann reaction in the blood remained unaffected up to the time the patients left hospital. Two cases of tabes were relieved of subjective symptoms, and the number of cells in the cerebro-spinal fluid was reduced. A case of tabo-paresis showed no change in the laboratory findings, and only slight improvement symptomatically. One case of paresis showed marked improvement in the symptoms and in the laboratory findings. The Wassermann reaction in the cerebro-spinal fluid became negative. One case of paresis showed no improvement in either the symptoms or the laboratory findings, but grew progressively worse. The results in cerebro-spinal lues and tabes in the small series of cases studied are encouraging, not only as regards the cessation of symptoms, but also in the laboratory findings in the cerebro-spinal fluid. The results in paresis are either discouraging or problematical. The most marked improvement has occurred in the laboratory findings, and in these there has been a relapse in those cases followed for several months. The improvement in mentality so far recorded may be but the result of remissions to which the disease is prone, even in the absence of treatment. The fact that improvement may occur, even if only apparent, warrants the use of the intraspinous treatment in a disease otherwise hopeless. K.

Abscess of the Lung.—Scudder (*Boston Med. and Surg. Journ.*, October 1st, 1914) records the experience at the Massachusetts General Hospital in the surgical treatment of abscess of the lung. This series of twenty-seven cases demonstrates, he believes, the efficacy of surgical treatment of the condition. Out of the twenty-seven patients nine died and eighteen recovered, eleven of whom were practically well without either cough or sputum. K.

Functional Liver Tests.—Krumbhaar (*New York Med. Journ.*, October 10th, 1914) analyses for us the present status of the various tests in use for estimating the functional activity of the liver. He comes to the following conclusions. Although no satisfactory single test for the functional capacity of the liver has yet been accepted, the phenoltetrachlorphthalein test of Rowntree promises the greatest value. The levulose and galactose tests, though easy of application are positive in too many non-liver cases to be considered trustworthy. The amount of urea in the blood or urine or its percentage to the total non-coagulable protein is totally untrustworthy in cases of cirrhosis or passive congestion. Like the tests for the fibrinogen and the lipase content of the blood, it may be of value in such obscure toxic conditions as phosphorus poisoning, or acute yellow atrophy, where the great mass of liver cells is simultaneously and deeply involved. Tests for urobilinogen in the urine, increased permeability to methylene blue, positive Abderhalden reaction, and diminished glycolytic activity of the blood serum, have also been described. The careful employment of one or more of these tests in the study of any given case of liver disease will unquestionably reveal facts of value. Further clinical and experimental work in this direction will probably furnish a diagnostic technic, the success of which is comparable with that employed in diseases of the kidney. K.

MEDICAL WAR ITEMS.

DR. STATHAM, formerly of the Bristol Royal Infirmary, contributes the following account of his experiences at the front to the *Bristol Times and Mirror*:—"In this job you do not see much of battle scenes. They are too big to grasp much of what goes on. The wounds are pretty horrid, and I did not think that I should hate it so much as I do. At one place we arrived at a little mildewed church, very poor and ruined-looking, and took over from the regiment about 100 wounded. We had only three or four candles to light us. We dressed them and laid them out pretty comfortably on straw. I went on night duty at 12 p.m. until 4 a.m. I slept in a pew, and was called when necessary. It was most gruesome in the flickering light, groans and deaths, and finally lots of rats came out and ran about. I was quite glad when we got away from that place. The men seem to enjoy the life out here very much. They are fairly safe and comfortable in their dug-outs and trenches, which mostly have fancy names, such as Woodbine Villa and Whiteley's Stores, etc. I have met Goodden here, but he is the only Bristol man I have come across. On the whole I am glad that I was able to get out so early and be through the 'Retreat,' but it was very unpleasant while it lasted. The loss of sleep was terrible, and I fell asleep whilst riding on several occasions. Once I fell down in the road whilst marching, sound asleep. The thing that strikes me most out here is the unfailing cheerfulness of the British Tommy under all circumstances. Although the wounded are often terribly injured, they still laugh and joke and ask for a cigarette, and seem quite happy.

Dr. H. L. Sells, of Croydon, who is now working at a base hospital at Rouen, sends the following account to the *West Sussex Gazette*;—"We have had a few cases of tetanus, but the mortality is very high. Every shell wound now gets a dose of anti-toxin on the field as a prophylactic, so we hope to reduce the number. Iodine is figuring very greatly in this war. And what a difference it makes. If a man comes in, having had iodine painted on at the field ambulance, he rarely gets sepsis, or at least only slightly; but if he has not it is a dead certainty that his wound is septic.

"The vast number of forms to fill in, papers to sign and initial, and case sheets, is appalling. It make one think that Army forms come first and patients afterwards."

A good account of his experiences at the front is contributed to the *Dundee Courier* by Lieut. Robert Cecil Dickson, R.A.M.C., of Dundee:—"Our hospital at present is a large Roman Catholic seminary for teaching boys for the priesthood. There are cubicles in the dormitories, so it makes an ideal hospital. We soon fit up various big rooms for a dispensary, a store, an office, an operating theatre, and an officers' mess. You would be surprised how quickly these places take on the appearance of having been used for their present purpose for years.

"Our function is clearing, that is to say, we receive wounded in batches from the field ambulances. There are convoys of 5 and 10 of these wagons, all painted the same colour, and with a red cross on their sides and one on the top, so that aeroplanes of the enemy may have a little consideration. They occasionally look at them with a blind eye, I am afraid. We dress and treat medicinally all cases admitted at once, and there is often a fearful rush. Then we get word from headquarters to clear. That means that a hospital train has arrived, and that we must get all our train cases down to it. This we do by putting them in the ambulance wagon. Sometimes we get 250 cases or so in one night, dress them all, and clear them out next morning. We get as much surgery to do in 24 hours as the average medico will do in a lifetime. The experience is invaluable, but rather too much at a time.

"The hospital trains leave for the ports, and the cases are then shipped to Britain by hospital ships. The organisation of the R.A.M.C. is perfect, and we can cope with a tremendous rush of patients. Taking all the units together, there are six clearing hospitals, all scattered here and there at suitable points, behind the firing line."

The British Ambulance Committee of the French Red Cross are glad to announce that their appeal for help for the French wounded has met with a most generous response, no less than £8,000 being received in five days.

By the kindness of Lady Wimborne, the committee will now work from Wimborne House, Arlington Street, where all communications should be addressed to the hon. secretary, Mr. B. Peyman, or Mrs. Cecil Baker.

Thirty cars can now be despatched in ten days to France, and more than fifty further offers of complete cars have been received. The maintenance expenses of these are very heavy, and it is hoped further funds will be immediately forthcoming, so that these valuable offers may not be lost to the French troops. A subscription list up to Monday night has been issued.

NOTICES TO CORRESPONDENTS, &c.

☞ CORRESPONDENTS requiring a reply in this column are particularly requested to make use of a *Distinctive Signature or Initial*, and to avoid the practice of signing themselves "Reader," "Subscriber," "Old Subscriber," etc. Much confusion will be spared by attention to this rule.

SUBSCRIPTIONS.

Subscriptions may commence at any date, but the two volumes each year begin on January 1st and July 1st respectively. Terms per annum, 21s; post free at home or abroad. Foreign subscriptions must be paid in advance. For India, Messrs Thacker, Spink and Co., of Calcutta, are our officially-appointed agents. Indian subscriptions are Rs 15.12. Messrs. Dawson and Sons are our special agents for Canada. For South Africa, The Record Publishing Co., Cape Town. Messrs. Geo. Robertson and Co., of Sydney and Melbourne, are our special agents for Australia.

Contributors are kindly requested to send their communications, if resident in England or the Colonies, to the Editor at the London office, 8, Henrietta Street, Strand; if resident in Ireland to the Dublin office, in order to save time in reforwarding from office to office. When sending subscriptions the same rule applies as to office; these should be addressed to the Publisher.

Reprints.—Reprints of articles appearing in this Journal can be had at a reduced rate, providing authors give notice to the publisher or printer before the type has been distributed. This should be done when returning proofs.

Dr. A. B. W. is thanked for his letter, the suggestion in which he will find was anticipated on reference to our last week's issue.

A FALSE REPORT.

We are requested by Mrs. E. Behnke, the well-known teacher of correct articulation for stammerers, who has been seriously troubled by the prejudicial report recently circulated to the effect that she is a German, to state that she herself is *English born and bred*. Her husband was naturalised in 1872 and died in 1892. Since that time Madam Behnke and her daughter successfully carried on his work

P. C. A. (Wolverhampton).—Amyloid, or lardaceous disease, formerly a usual accompaniment of a prolonged period of suppuration, is now seldom seen. It is known also to occur in connection with long-standing cases of syphilis, thus while Listerism has practically abolished chronic suppuration, and modern treatment has deprived syphilis of its worst ravages, visceral disease due to amyloid degeneration has almost become a thing of the past. Even when present the diagnosis is a matter of extreme difficulty.

F.R.C.S.—Good results in the treatment of ozæna have been obtained by vaccine of Perez' bacillus. The vaccine is said to act as a specific, and one of more value than any other method in this regard.

THE SENDING OF PRIVATE CHRISTMAS GREETING CARDS.

The President of the Newsagents', Booksellers' and Stationers' National Union is anxious to call attention to the fact that the manufacture of Private Christmas Greeting Cards is quite a British industry, employing thousands of workers in this country, and that to our gallant countrymen now serving at the front, we can send a word of cheer by these tokens of goodwill NOT "made in Germany." It would be a great pity if the War were to cause any break in the time-honoured custom of remembering our absent friends at Christmas time.

Dr. T. A. (London, W.).—Your case is by no means an isolated one. Through the exigencies of the War several modifications of medical practice must necessarily take place, if, indeed, certain departments thereof are not seriously threatened.

Ophthalmoscope.—Your letter is unavoidably held over for want of space.

Mr. F. Stanton (Herts).—You would probably find what you need in the little booklet on "Invalid and Convalescent Cookery," by Mary E. Birt, published by Messrs. John Wright and Sons, Ltd., Bristol, which contains many valuable recipes for tasty and inexpensive dishes for invalids and convalescents.

Meetings of the Societies, Lectures, &c.

Wednesday, November 25th.

Hunterian Society (London Hospital, Mile End Road, E.).—4 p.m.: Clinical Afternoon. Dr. J. H. Sequeira.

Royal Society of Arts (John Street, Adelphi, W.C.).—8 p.m.: Sir William A. Tilden: The Supply of Chemicals to Great Britain and her Dependencies.

Thursday, November 26th.

Royal Society of Medicine (Section of Balneology and Climatology) (1 Wimpole Street, W.).—5.30 p.m.: Dr. Sunderland: Old London's Spas, Baths, and Wells.

Harveian Society of London (Stafford Rooms, Titchborne Street, Edgware Road, W.).—8.30 p.m.: Discussion on the Drug Habit and its Treatment by Modern Methods (opened by Dr. C. Miller, Dr. T. B. Hyslop, and Dr. Claye Shaw).

Friday, November 27th.

Royal Society of Medicine (Section for the Study of Disease in Children) (1 Wimpole Street, W.).—4.30 p.m.: Cases by Dr. F. J. Poynton, Dr. E. B. Gunson, Dr. Bernard Myers, Dr. J. D. Rolleston, Mr. L. Bromley, Mr. Philip Turner and Dr. T. R. Whipham.

Royal Society of Medicine (Section of Epidemiology and State Medicine) (1 Wimpole Street, W.).—8.30 p.m.: Papers: Dr. W. G. Armstrong: The Recent Epidemic of Small-pox in New South Wales: its Diagnosis and Prevention. Dr. J. Burton Cleland and Dr. E. W. Ferguson: The Nature of the Recent Small-pox Epidemic in Australia.

Tuesday, December 1st

Royal Society of Medicine.—5 p.m.: Occasional Lecture in The Robert Barnes Hall. Dr. D. Barty King: Some Recent Experiences of Germany in War Time (during Detention in Germany) and their Lessons. Illustrated by lantern slides. Visitors invited.

Royal Society of Medicine (Section of Pathology) (Pathological Department, St. Bartholomew's Hospital, E.C.).—8.30 p.m.: Dr. Lazarus Barlow: The Effect of Radium on Different Types of Cells. Mr. S. G. Shattock and Dr. L. S. Dudgeon: Cytocides. Mr. R. McKenzie Wallis: The Palarimetric Method for Estimating Protective Ferments in the Blood.

Vacancies.

West Riding of the County of York.—Storthes Hall Asylum, Kirkburton, near Huddersfield.—Assistant Medical Officer. Salary £230 per annum, with furnished rooms, board, attendance and washing. Applications to the Medical Superintendent.

University of London.—University Chair of Physiology. Salary £600 a year. Applications to the Academic Registrar, University of London, South Kensington, S.W.

Macclesfield General Infirmary.—House Surgeon. Salary £150 per annum, with residence, board, and laundry. Applications to the Secretary.

City of Birmingham.—Assistant Medical Officer of Health. Salary £300 per annum. Applications to the Medical Officer of Health, the Council House, Birmingham.

County and City Asylum, Powick, near Worcester.—Junior Assistant Medical Officer. Salary £225 per annum, with board, lodging, and washing. Applications to the Medical Superintendent.

The Metropolitan Ear, Nose, and Throat Hospital, Fitzroy Square, W.—House Surgeon. Salary £150 per annum. Applications to the undersigned.

West Ham and Eastern General Hospital, Stratford, E.—Senior House Physician. Salary £120 per annum, with board, residence, and washing. Applications to the Secretary.

Appointments.

Ferguson, J. J. Harrower, M.B., Ch.B.Edin., Medical Superintendent at Fife and Kinross Asylum, Springfield.

Phillips, G. C. J., L.S.A., M.R.C.S.Eng., Certifying Surgeon under the Factory and Workshop Acts for Woburn Sands District of the County of Bedford.

Ramsden, Walter, M.D., Ch.B.Oxon., to the Johnston Chair of Biochemistry in the University of Liverpool

Wadsworth, T. W., M.D., Ch.B.Liverp., Temporary Medical Officer of Health for the County of Dorset.

Births.

Fraser.—On November 15th, at 28 Belsize Avenue, Hampstead, the wife of Dr. D. Hammand Fraser, of a son (Roderick Andrew).

Fitzwilliams.—On November 21st, at 31 Grosvenor Street, W., the wife of D. C. L. Fitzwilliams, F.R.C.S., Capt. R.A.M.C.T., of a son.

Grogono.—On November 16th, at Witham Lodge, Stratford, E., to Dr. and Mrs. Eric Grogono—a son.

Lankester.—On November 14th, at Guildford, the wife of Cecil P. Lankester, M.R.C.S., of a son.

Thomas.—On November 21st, at 5 Colston Parade, Redcliffe, Bristol, the wife of J. M. M. Thomas, M.R.C.S., L.R.C.P., of a daughter.

Marriages.

Brown—Simpson.—On November 13th, at Adelaide, South Australia, Gilbert Brown, M.B., Ch.B., son of W. D. Brown, Burscough, Lancashire, to Marie Simpson, M.B., B.S., D.P.H., daughter of A. H. Simpson, Nottingham.

Orchard—Phillimore.—On November 14th, at Bath, by the Rev. R. Reade, James Russell Orchard, M.B., of Pendleton, Manchester, to Eleanor Hope Phillimore, youngest daughter of the late Admiral H. B. Phillimore and Mrs. Phillimore, of Torquay.

Smythe—Cloutman.—On November 14th, at St. Mary, Redcliffe, Bristol, by the Rev. J. N. Bateman Champain, Henry James Drew Smythe, M.B. (Lieut., R.A.M.C.), son of the Rev. F. T. Smythe, Nailsworth, Glos., to Enid Audrey, youngest daughter of Mr. and Mrs. Curtis Cloutman, Bristol

Deaths.

Cazenove.—On November 18th William Reginald Cazenove, M.R.C.S., L.R.C.P., of West Norwood Lodge, Knight's Hill, London, aged 40.

Evatt.—On November 13th, killed in action in France, Captain George Raleigh Kerr Evatt, 1st Battalion Middlesex Regt. (57th Foot), only son of Surgeon-General G. J. H. Evatt, M.D., C.B., Army Medical Staff, and Mrs. Evatt, of Wayside, Camberley, Surrey.

Moran.—On November 11th, at his residence, Belper Dunsany, Meath, Ireland (of pneumonia), Peter G. Moran, M.B., R.U.I., eldest son of Peter Moran, J.P., Blackwater, Ratoath, Meath. Deeply regretted by his sorrowing widow and children. R.I.P.

Reid.—On November 16th, at Accrington Road, Blackburn, Andrew Reid, M.B., Ch.B.Glasg., aged 35.

Stockwell.—On November 20th, at Bruton, Somerset, Frederick Stockwell, M.D.Lond., aged 76.

Yeo.—On November 20th, suddenly, J. Burney Yeo, M.D., F.R.C.P., of 8 Cadogan Place, S.W., dearly loved husband of Winifred Helen Yeo.

THE MEDICAL PRESS AND CIRCULAR.

"SALUS POPULI SUPREMA LEX"

VOL. CXLIX. WEDNESDAY, DECEMBER 2, 1914. No. 23.

NOTES AND COMMENTS.

The Belgian Medical Relief Fund. This week we publish a list of contributions in aid of the Belgian medical men and pharmacists. The "provisional" committee has now been considerably enlarged and extended, and is now fairly representative of the medical profession of the United Kingdom. The committee has published a statement recognising the dual object of their organisation, first, to extend immediate relief to our Belgian colleagues and to the pharmacists in their dire distress, and, secondly, to help at some later period to reinstate them in their practices and places of business. The aims of the committee must commend themselves to every medical man in the Kingdom. At the same time it may perhaps be permitted to criticise the methods, so far as they are announced, for attaining our common object, namely, the relief of our Belgian friends in the dire ruin and disaster with which they have been overwhelmed. It is announced that 2,000 packages of drugs have been ordered at £5 each, and some of these are to be sent to Belgium as a tentative measure. This hardly seems the kind of help that is wanted. The cost of the consignment would be £10,000, a sum that may or may not be raised by the committee, but we venture to suggest that a £5 note apiece to the 1,000 destitute medical men and the 500 pharmacists in a similar plight would be of more direct and immediate service. The committee, however, has doubtless discussed the matter carefully before coming to a decision, and there may be various substantial reasons which do not appear on the surface, but which, it may be hoped, will be set forth at an early date for the information of contributors.

The Finance of the Matter. Five pounds in cash does not avail much for a starving professional man. Five pounds' worth of drugs is a still more embarrassing gift. To give each destitute medical man and pharmacist, say, £20 apiece would cost £30,000. Does the committee hope to raise this amount, which is in itself inadequate, in our opinion, to meet the requirements of the case? It would be of little avail to give a few five-pound notes here and there and leave the main bulk of the destitute Belgian doctors and pharmacists unrelieved. To be effectual the committee will have to raise, probably, at least £100,000, that is to say, if our colleagues are to be put in a position "*pour recommencer la vie.*" Yet £100,000 would provide only a trifle over £66 per head, an amount that is clearly insufficient to provide even the humblest of professional and living quarters, for both enter into the question. The more the matter is discussed, indeed, the more evident it becomes that the private philanthropy of the medical profession of the United Kingdom, even when reinforced by the inexhaustible kindness of our lay population, cannot hope to afford adequate monetary aid to the Belgian doctors and pharmacists.

The Alternative—a Government Loan. The only practical alternative, so far as we can see, to private benevolence is that of a Government grant. When the letter of appeal from Prof. Jacobs, of Brussels, was published in our issue of November 11th, we advanced the view that the only way of satisfying the needs of the case was to obtain a grant from the British Government of £200,000 or £300,000. It is to be hoped that the London committee, the amended constitution of which is broad enough to ensure wisdom of counsel, will carefully consider the advisability of urging such a grant from Mr. Asquith's Government as advocated in our columns of November 18th. It may again be pointed out that such a grant would not be regarded as a gift, but as a loan repayable by the recipients in future years. The Chancellor of the Exchequer might issue bonds, say, of £500 at four or five per cent. interest to any destitute Belgian medical man or pharmacist for the express purpose of setting him up again in life. The investment would be absolutely wise and sound, for as the British Government will have to bear the financial responsibilities of Belgium for some time to come, the reinstating of the medical service of the nation could hardly fail on health grounds to be a precautionary investment of incalculable value. We suggest an immediate and influential representative deputation upon the subject to Mr. Asquith, to set forth the dire distress of the Belgian medical men and pharmacists, and to ask for a Government loan sufficiently large to afford them instant and adequate relief. The deputation would naturally draw attention to the economic and political advantages of the proposed grant, that is to say, apart from its philanthropic aspects.

The State and Tuberculosis. ONE of the great features of the National Insurance Act was the inauguration of an attempt on the part of the State to deal with human tuberculosis. A vast undertaking of that kind is obviously not to be accomplished offhand, and much more water will run beneath London Bridge before this organised campaign will have attained its object. At the same time, it must be admitted that accommodation has been provided for a great proportion of consumptives, who are thereby not only given a chance of recovery but also represent so many centres of infection removed from contact with unaffected persons. After the lapse of a few years, when the preventive machinery of the Act has attained a fuller development, we may anticipate a still more rapid diminution in the tuberculosis returns than that which has been happily registered in recent years. A full control of the disease will probably be secured only when rigid prevention is extended to milk and meat and other foodstuffs known to be capable of conveying the active virus of consumption. In point of fact, the arm of administrative prevention still lags far behind that of scientific knowledge.

For all that, it behoves the medical profession to appreciate the value of the preventive measures which have been so far established. To take a current illustration of work in that direction under the Insurance Act, a recent report showed that of 263 applications for sanatorium treatment made to the County Insurance Committee of Preston no fewer than 152 were from persons who had not previously been granted any form of treatment. These figures bear eloquent testimony to the value of Mr. Lloyd George's Act.

Occupation Incidence. IT is interesting to note the information given as to the occupations followed by the 152 patients whose disease had not been previously treated, and, it may be presumed, had in many or most of them not been detected. Of these 152 applicants were: 1 agricultural worker; 4 bleachers, dyers; 5 carters, lorrymen; 7 clerks, shop assistants, teachers, etc.; 7 colliers; 68 cotton factory workers; 3 domestic servants, laundress; 7 fitters; 2 hawkers; 5 ironworkers; 3 joiners; 23 labourers; 5 leather factory workers; 4 machinists, etc.; 1 plumber; 1 painter; 1 sailor; 2 stonemasons, etc.; 3 warehousemen; and in one case the occupation was not stated. The numbers dealt with are, of course, too small for accurate conclusions. At the same time the outstanding fact of the diversity of the occupations involved has its significance. Why should domestic servants and agricultural workers suffer from tuberculosis? The answer must probably be sought in the conditions of their home environment, and something of the same kind applies more or less in all likelihood to the other workers in this interesting list. Is there any more healthy occupation conceivable than that of a fisherman? A certain amount of tuberculosis, however, exists among that class of the community, and may be attributed partly to the bad sleeping accommodation in fishing boats—but, above all, to the wretched housing that is almost invariably associated with fishing villages. From this point of view the moral of Preston County's tuberculosis list lies on the surface.

Veronal and the Poisons Schedule. IT is not so long ago that a famous medico-legal case at Brighton drew public attention to the dangers of veronal. Nothing has been done since, however, to restrict the sale of that highly dangerous drug, as shown by a more recent case at Margate, where a widow died of an overdose of veronal, of which she appears to have had no difficulty in purchasing as much as she wished. It was stated in evidence that the drug was bought in bottles to which was affixed a "poison" label and instructions stating that the dose was to be ordered by a physician. That these precautions are inadequate is proved by the constant recurrence of deaths from self-administration of the drug. It is not clear why veronal is not placed on the schedule of poisons. The authorities must have had their attention drawn to the numerous deaths arising from the cause. The slowness of official action in such matters, however, must not lead the impatient onlooker to imagine veronal will never be scheduled. Take the case of carbolic acid which for years headed the returns of deaths from poisoning, but has now been placed under certain restrictions. The whole subject of the sale of dangerous drugs demands careful investigation and Governmental action. As a matter of sober fact, it is far easier for the man in the street to buy some deadly poisons than it would be to procure dynamite or other high explosives.

The Bacteriology of Scarlet Fever. THERE is little room for doubt that scarlet fever is due to a specific pathogenic microbe, the identification of which has proved an *ignis fatuus* to many investigators. So far no such organism has been established, and the world of medicine still awaits the great discovery, which will doubtless be pregnant with results comparable with the case of tuberculosis, syphilis, anthrax, and so on. Upon the presentation of a special report upon the subject to no less a body than the Metropolitan Asylums Board on Friday last, Dr. Elliott Browne announced that Dr. Mair, a Scottish scientist appointed by the Board fifteen months ago to investigate the causation of scarlet fever and measles, believed he had identified the organism of scarlatina. Dr. Mair naturally takes a cautious view, as expressed in the following sentence:—"In a matter of this kind final certainty can be attained only after prolonged observation, but the results already obtained are sufficiently important to merit immediate publication, and I hope that other workers may repeat the experiments and confirm the interpretation which I have placed upon them." It is understood that Prof. Sims Woodhead, Consulting Bacteriologist to the Board, regards the work as being of great promise. Further communications on the point will command universal medical interest, as the prospect of introducing effectual preventive and curative measures of a widespread and disastrous scourge will be proportionately enhanced.

The Medical Roll of Honour. It is announced by the Admiralty that the following medical officers were on board the ill-fated battleship *Bulwark* when she was blown up last week:—Fleet-Surgeon Percival K. Nix, M.B., B.A.; Surgeon William Miller, and Surgeon Robert T. Brotchie, R.N.V.R. The following casualties among officers of the Royal Army Medical Corps have been reported since our last issue:—Officer died of wounds: Major E. B. Steel, R.A.M.C. Officer wounded: Captain C. J. Coppinger, R.A.M.C. Officers previously reported missing now reported prisoners of war: Lieut. J. L. Jackson, R.A.M.C., and Lieut H. G. Winter, R.A.M.C. Officer previously officially reported wounded and missing, now unofficially reported prisoner of war: Captain A. M. Rose, R.A.M.C. Officer missing: Captain H. G. Robertson, R.A.M.C.

LEADING ARTICLES.

THE PRESIDENTIAL ADDRESS AT THE GENERAL MEDICAL COUNCIL.

THE hundredth session of the General Medical Council was duly opened on November 24th by an address from the President, Sir Donald MacAlister. Such an occasion, it was remarked, might in ordinary times have invited an historical review of the work of the Council. For the time being however, the war has imposed many additional duties and responsibilities in connection with the civil as well as the naval and military services of the country. For the time being the Council has lost the services of Mr. N. C. King, the General Registrar, who is now at the front on active service with the rank of Major. Mention was made of the new British Pharmacopœia, 1914, the publication of which was delayed for three months owing to the advent of the war. In the meantime, the issue of advance copies afforded the Special Committee an opportunity of revising the text. The President described in clear and simple words the delicate duty discharged by the Council in relation to the admission of candidates to medical qualification for war service under modified conditions. In order to meet the sudden demands of the Army and Navy medical services in the face of a huge war it became at once evident that a large increase of qualified men would be necessary. After due consideration and correspondence, the Council appear to have left the matter of ultimate decision largely in the hands of the qualifying bodies, on the understanding, however, that certain broad principles would be adopted as a basis of such modification. In a circular addressed to the licensing bodies the Council pointed out that it was their statutory duty to maintain a good standard of proficiency in candidates. To that end the Council had issued formal recommendations, which were embodied in the *Regulations* of the various licensing bodies. In some cases the latter might deem it expedient to modify or suspend their regulations in favour of a particular candidate, but the Council ask to be notified of any such action. To this statement the Council add the following note :—" The Council feels sure that in dealing with any application for modification or suspension of their *Regulations,* the bodies concerned will recognise the importance, in the public interest, of maintaining unimpaired the present standard of knowledge and skill required of all who seek to be admitted to the status and privilege of registered practitioners, and will accordingly agree with the Council that it is desirable to secure in every instance that the requirements of the minimum curriculum are satisfactorily fulfilled." The President next discussed the special needs of the situation. Many of our medical brethren had already offered themselves for service both at home and abroad, and some had already fallen at the altar of duty. A large reserve of medical men was imperatively required, and this was being supplied by those who were now being admitted to qualification. Sir Donald insisted upon a point, the importance of which is perhaps not widely enough recognised, namely, that the need of efficient medical men is no less urgent at home and in the field than is the need of efficient soldiers and sailors. " I have felt it my duty," he added, " to press this consideration on senior students, who, though they have nearly completed their curriculum, are ready to forgo the prospect of early qualification and to enrol themselves straightway in the combatant forces." A decrease of medical students has been reported, and in view of inquiries from various public authorities, materials are being collected for an estimate of the aggregate numbers likely to be ready for qualification in the next two or three years. It may be perhaps permissible to interpolate at this point a warning as to the reaction in the opposite direction likely to take place at the termination of the war, when large numbers of young medical men will be suddenly thrown upon their own resources. That consideration alone, apart from the wise and argued conclusions of the General Medical Council, should stay the hand of any licensing body that may be tempted unduly to relax its *Regulations.* Sir Donald made a graceful allusion to the ready loyalty displayed by the medical profession in meeting the sudden emergencies of panel and private practice, due to the dislocation of civil medical work by military exigencies. In acknowledging the magnificent rally of the Overseas Dominions to the defence of the Empire, he commented on the fact that some of the Canadian provinces had failed to respond to the offers of reciprocity in medical matters. As a result, the surgeons on active service who qualified in those non-reciprocal provinces are technically debarred from holding commissions in the Army Medical Service. In India various important medical matters have been dealt with, and others are still under negotiation. The vital question of the receipt of certificates from unregistered practitioners in dentistry was referred by the Council to the Board of Education. The latter body appointed a special committee, which has unanimously advised that certificates should not be accepted from unregistered practitioners. In alluding to another important point, the President said : " On August 4th, when war was declared, the House of Commons ordered to be printed the Report of the Select Committee on Patent Medicines. The findings and recommendations of the Committee deserve the Council's most careful attention. They testify in vigorous terms to the existence of a ' grave and widespread public evil,' and of an ' intolerable state of things,' for which new legislation, ' rather than merely the amendment of existing laws, is urgently needed in the public interest.' The Council, at the instance of its Unqualified Practice Committee, to which this Report has been referred, has more than once expressed similar conclusions, but hitherto without practical result so far as the Legislature is concerned. It is earnestly to be desired that, even in days like these, when the conservation of the public safety is the paramount objective of the Government, some earnest thought should also be given to the conservation of the public health, which is preyed upon by insidious and unscrupulous mercenaries."

CURRENT TOPICS.

Red Cross Hospital in Dublin Castle.

Last week we referred to the intention of the City of Dublin Branch of the British Red Cross Society to erect, if funds were forthcoming, a temporary hospital of five hundred beds in the grounds of the King George V. Military Hospital in Dublin. The scheme had many drawbacks, and we rejoice to find that through the kind intervention of the Lord Lieutenant a much better alternative is to be adopted. His Excellency, with the warm approval of the King, has offered the Red Cross Society the use of Dublin Castle as a hospital for wounded soldiers. The premises have been inspected from a medical and sanitary point of view, and it is reported that they can very readily be turned into a hospital capable of containing at least four hundred and fifty beds. They are well heated, well lighted and well ventilated. The situation is central and convenient. It is calculated that a sum of about £5,000 is required to equip the requisite number of beds The maintenance will be covered by a *per caput* grant from the War Office. We understand that an honorary medical and surgical staff will be formed from the members of the staffs of the Dublin hospitals, and that trained nurses will be employed. We are sure that the scheme will, if cautiously managed, receive the support of the public, and the fact that the King is devoting one of his own palaces to the accommodation of his wounded soldiers cannot fail to touch the imagination of the public.

War Surgery.

In his opening address as President of the International Society of Surgery in April this year, Professor de Page, of Brussels, reminded his audience that it was "the privilege of our little Belgium to offer a meeting-place to the learned men of all nationalities, covered by Europe herself with the shield of peace and liberty." It is a sad irony that it should have been a Belgian surgeon who opened the Congress in these words with an address upon War Surgery. Many of the speakers at that meeting are now serving in the armies of our allies or our foes; but the surgeon in the field recognises in the stricken neither ally nor foe: respect for human life should be his only guide, and in time of war it is our highest duty, as medical men, to procure as far as possible the help available in time of peace for those who stake health and life for the safety of nations. Professor Delorme, of Paris (*a*), has recently published a most eloquent appeal for more conservative efforts in the treatment of the wounded, as against the operative excesses of the recent Manchurian and Balkan campaigns. Eulogistic appreciations have already appeared in the English press of the salutary conservatism of the French surgeons at the base hospitals of Paris. In the stress and hurry of this colossal campaign, with its appalling toll of casualties, the lesson emphasised by Lister long ago as the guiding principle in the treatment of wounds—to let alone—is apt to be overlooked or forgotten. To-day an amputation is the rarest of operations in the surgery of peace; by all possible means we should strive to reduce its use in the surgery of war. M. Delorme insists most emphatically that "amputation is only admissible in cases of confirmed gangrene." The benefits of the advances of surgery of the last decades—Bier's hyperæmia, suture and anastomosis of blood-vessels, and free transplantations—by which extremities whose removal seemed hitherto inevitable can often be successfully preserved, should be applicable by practised hands to the wounded in military hospitals. That limbs must be lost in war time from gangrene and sepsis is perhaps inevitable; but careful instruction of the soldier as to prophylactic dressing will save many an extremity which ignorance would have lost. M. Delorme is a firm believer in the efficacy of tincture of iodine as the best and surest disinfectant available for field surgery. In all jagged wounds, caused by *balles ricochées* or by shrapnel, he urges the liberal use of hydrogen peroxide, as a prophylactic against the anaerobic organisms which may have been carried in on mud-stained clothing to the depths of a wound, with accompanying risks of tetanus or gas gangrene.

Sir Oliver Lodge and Psychical Research.

Sir Oliver Lodge has for some time been regarded curiously by the scientific world. The greatness of his name has been somewhat discounted among his fellows because he has plunged into psychical research. He has been held to be a backslider from materialism because he has tried to sift what is assumed to be unknowable, the most pregnant problem that could be placed before us, the question of a life hereafter. Psychical research, for the sins of its followers, has long been a byeword. There has been too much clever faking and expert charlatanism about the adherents of the Witch of Endor for the plain man. Necromancy is pronounced with the accent on romance. We have been accustomed to think of those who claim to have communication with the dead as either fools or knaves, or both. Sir Oliver must give us pause. No one will question his *bona fides*, and he is far from what is commonly regarded as a fool. He declares definitely and *ex cathedra* that he has scientific proof of a life hereafter. Many men have claimed to have absolute proof of one thing or another who have subsequently shown themselves quite ignorant of the first principles of scientific deduction. Sir Oliver Lodge is not one of these. When he says he has scientific proof he knows what he means. Whether his proof will convince the rest of the world is another matter. The eye of faith is as all-seeing as the eye of Utah, and the best of us may be deceived. To many men Sir Oliver Lodge's work is supererogatory. With the scientific proof of the doctrine of immortality, if, indeed, it be capable of such proof, we as a medical journal are not concerned, yet the rest of the world waits the promised proofs. Sir Oliver has flattered dust with eternity, and he must prove his words. We are not sure that he can do it, but we are waiting.

"Twilight Sleep."

The undesirable publicity recently given by the lay press to the method of diminishing the pains of childbirth by the use of scopolamine-morphine anæsthesia has served to re-awaken the interest of the medical profession in a subject which was first brought to its notice some twelve years ago, revived in 1906, and subsequently allowed to subside. Dr. Jacob Heller, of Brooklyn, has recorded in the *Medical Record* his observations of 150 cases of "twilight sleep" drawn from the charity and private service of the Jewish Maternity Hospital. Cases of extreme pelvic contraction, of placenta prævia, and of absent or doubtful fœtal heart-sounds were excluded, as well as those in which the patient was already too far advanced in labour. Of the series 113 were primiparæ, and 37 multiparæ. Vertex presentations formed 148 of the series, the other two being the breech, 131 cases were delivered spontaneously, 19 being delivered by forceps. No instance was met with in which the placenta was retained for more than thirty minutes, and in no case was hæmorrhage abnormally profuse. The *technique* of the best Continental authorities was closely followed. This

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(*a*) "Précis de Chirurgie de Guerre." Par Ed. Delorme, Médecin Inspecteur-Général de l'Armée. Paris: Masson et Cie. Pp. 226. Price 4fr. 50. 1914.

consisted of an initial injection of 1 c.c. of a 3 per cent. solution of morphine-narcotine-meconate, and through the same needle, and without removing it, a 1.5 c.c. of a 3/1,000 of 1 per cent. solution of scopolamine hydrobromide. An hour later one-third of the latter dose is repeated. Half an hour later the patient was given the memory test—*i.e.*, she was asked if she recollected a certain object previously shown her. If her answer was clear and decisive, the third injection of scopolamine was given at once (½ c.c.), and if not, it was delayed until the hour was up. In 122 cases, or 81.3 per cent., complete amnesia and an almost equal degree of analgesia were obtained. The author concludes that, so far as can be judged with his small series of cases, the method, when judiciously employed, is free from risk to life or health of both mother and child.

Gastric Ulcer and Strain.

The fact that quite a fair-sized ulcer of the stomach may be present during life without causing any special symptoms—the so-called latent ulcer—is well known to pathologists who are accustomed to demonstrate such lesions at *post-mortem* examinations. Like many other diseases the existence of which is unsuspected or undiagnosed in the patient's lifetime, a gastric ulcer may become "explosive," as certain American authors say, and cause death through perforation. This mode of termination may sometimes occur spontaneously without any apparent reason, or the dreaded complication may arise as the result of some sudden physical strain. The latter mode of onset was held to be responsible for the death of a Blackburn weaver the other day. According to the report in the local paper, the deceased, a girl of nineteen, was seemingly in good health on a certain day, when she lifted some heavy loom weights at the mill. She imagined she had "sprained herself," and went to bed, death taking place next day from general suppurative peritonitis due to the perforation of an ulcer at the pyloric end of the stomach. A similar catastrophe might, of course, have occurred if the girl had been walking or lying in bed if the ulcer had been just on the point of bursting. The diagnosis of perforated gastric ulcer may be suspected, apart from the history of previous indigestion or a recent strain, in cases of sudden intense pain in the abdomen with collapse and local rigidity, with or without vomiting, and a rapid pulse. Frequently, however, one cannot get further than the "acute abdomen," the precise condition of affairs being revealed only by a timely exploratory laparotomy.

Football and the War.

Association football is becoming an uncontrolled Frankenstein monster that Demos, the king, has set up. It is played in the three kingdoms, and in some places is treated lightly as a game. But in England's great cities it is an industry which must "carry on" with its customary patronage and dividends. It is a Moloch or an octopus that stretches out its tentacles and swallows the Saturday populace of our towns. The amateurs have gone. Their name is legion and their game is war. Rugby players are suffering a winter of discontent and have gone to earth in the trenches. Association goes on. Unattached males in tens of thousands watch the weekly trangressions of the perfect sphere as if it were eternal as its prototype. The thing of shreds and patches and high-pressure air is bandied gaily about as if all was right with the world. *Panem et circenses* has developed into "cigs. and soccer." The progress is not notable. The thing is a sickening sight—two-and-twenty highly trained and highly paid kickers surrounded by massed banks of mollycoddles that six months and a few competent sergeants could turn into men. The nation is calling; men, drilled men, men who can do things are her most urgent need. She seems to call on ears tuned only to the cacophonous plunk of inflated rubber. Football is a fine game to play, but in England to-day it is not played, but only "followed." "A certain liveliness" is all right. We must have recreation, but it is far from edifying to see the crowds of raw material who live for Saturday soccer. Attempts have been made to make recruits among the masses of raw material on the stands. They have failed dismally. Hardly a man has responded. The football spectators have lost all sense of proportion. In their forcible-feeble enthusiasm for their favourite collection of kickers they forget everything else. If the disgrace were stopped they might have a little time for reflection.

The Reuben Harvey Prize.

In our advertisement columns we publish the announcement of the forthcoming award of the Reuben Harvey Memorial Prize. The prize, value £25, is to be given next July to the author of the best essay evidencing original research in animal physiology or pathology. Competition is limited to students of the Dublin schools of medicine and to graduates and licentiates of the Dublin licensing bodies of not more than three years' standing. The object of the award is, as we have before now remarked, very judicious in that it stimulates research at a period when most thought is given to the passing of examinations. Some very meritorious work has been put forward before now by candidates for the Reuben Harvey Prize, and we hope that the competition in 1915 will, in spite of many distractions, be keen.

PERSONAL.

Dr. A. G. Gibson, D.M.Oxon., of Christ Church, has been appointed University Lecturer in Morbid Anatomy in the University of Oxford.

The new President of the Medical Council of Canada is Dr. Robert S. Thornton, M.D., M.P.P., of Deloraine, Man., who was formerly President of the Medical Council of Manitoba.

Dr. H. Hyslop Thomson has been appointed County Medical Officer of Health for the administrative County of Hertford during the absence of Major F. E. Fremantle on active military service.

We offer our congratulations to Dr. J. J. Paterson, Medical Officer of Health of the East Berkshire Combined Districts, who has been held a prisoner in Germany since the beginning of the war, upon his safe return home.

Dr. Geoffrey E. Oates, M.D., B.S., M.R.C.P. Lond., D.P.H.Camb., has been appointed Medical Officer of Health, School Medical Officer, and Medical Superintendent of the Isolation Hospital for the Urban District of Ilford.

Sir Frederic Eve, F.R.C.S., Senior Surgeon to the London Hospital, will deliver the Bradshaw Lecture at the Royal College of Surgeons of England, on Tuesday, December 15th, at 5 p.m. Subject, "Acute Hæmorrhagic Pancreatitis, with remarks on the Ætiology of Chronic Pancreatitis."

FRENCH CLINICAL LECTURE

ON

EARLY SYMPTOMS AND DIAGNOSIS OF CANCER OF THE RECTUM.

BY PROFESSOR QUENU,

Surgeon to the Cochin Hospital, Paris.

[Specially Reported for this Journal.]

Since you have attended my wards you have had opportunities of observing some ten cases of cancer of the rectum. Several of them were inoperable by reason of the spread of the mischief, while others were within the limits of operability, but in none of them was the diagnosis made early in the course of the disease in spite of the fact that, in most instances, medical advice was sought at the very beginning. Almost always their troubles were attributed to piles or enteritis, without direct rectal examination for the purpose of verifying one or other of these diagnoses.

The most striking and the most lamentable of these cases is that of a girl, æt. 17 years, admitted in April last, upon whom I recently operated. She is tall, pale, thin. She tells us that she has been more or less anæmic ever since she began to menstruate and had been suffering from dyspepsia for several months when, in July, she first noticed blood in the stools. She went for advice to the out-patient department of a Paris hospital in which she had previously been a month under treatment, and there, without any examination, they ordered sitz baths. The rectal bleeding recurred every fortnight or so, aggravating the pre-existing debility. She had suffered from constipation, and this became more pronounced, so much so that she became unable to go on with her work as a general servant, and was admitted to a hospital, where she remained six months. During this period she never had a motion except on taking an enema. Ultimately she came to this hospital in April.

She told us that no rectal examination had ever been made. An inch and a half from the anus the finger came upon a hard mass occupying the posterior three-quarters of the gut, leaving a band of healthy tissue on the anterior wall, limited above and behind, adherent to the sacrum. In consequence of these adhesions we had the greatest difficulty in dragging the rectum down. The prognosis is of course much less promising after a late operation than when performed early, but in spite of this the immediate results of the operation were satisfactory, she had no more pain, and her strength began to return, so much so that, as you see, two months after the operation, she had gained many pounds in weight, her cheeks are rosy and she is able to assist the nurses in their work.

There is a lesson to be learned from this case, *viz.*, that any trouble in connection with defæcation, especially if accompanied by loss of blood, points strongly to the immediate necessity for rectal examination, *whatever be the age of the subject.* The youthfulness of this patient is the only excuse I can see for the practitioners who failed to make this examination because one could hardly suppose that epithelioma of the rectum was likely to be present in a young woman, æt. 27. It may be well to mention that in the year 1899 I collected a dozen instances of cancer of the rectum in subjects under 20.

The rectum is of course only exceptionally the seat of cancer in subjects under 20 years of age, but its possibility must not be lost sight of. It ceases to be rare between 20 and 30. In 1899 I had three cases of my own, and saw two others, æt. 21 and 22. Tuttle, out of a hundred patients of his own, had eight between 21 and 32. Nevertheless it is between 40 and 60 that cases of cancer of the rectum are of most frequent occurrence.

Now let us consider what are the earliest symptoms. In the case of this girl, as you have seen, bleeding was the first indication. Of the other patients with this form of cancer at present in our wards, one, æt. 63 years, in good health in October, first complained of frequent calls to stool, the fæces being streaked with bright blood. He consulted a doctor who diagnosed enteritis and dieted him. The calls to stool became more imperative and his efforts resulted in the expulsion of material like crushed strawberries with occasional blood clots. In January he found that he had lost 13 lbs. in weight; this scared him, and he consulted yet another doctor, who, still without any rectal examination, gave him antiseptic cachets. By this time the calls numbered eight or nine a day, the constipation was not very pronounced, the motions being sometimes formed, sometimes liquid. In April he consulted Dr. Friedel, who sent him on to us. On examination I felt above the prostate a granulating mass on a hard base encircling the rectum, horseshoe fashion. I could reach the upper margin and the tumour was somewhat movable. You see, then, that in both these cases the first symptoms were bleeding and frequent calls, but without well marked constipation, at any rate to begin with. In both instances the cancer was horseshoe in shape, not completely encircling the gut.

You will remember my calling your attention to a woman, æt. 48, in the Salle Richet, who was admitted on April 18th for a very offensive reddish vaginal discharge. Vaginal examination revealed the fact that behind the left labium minus there was a pedunculated sanious tumour the size of a walnut lying on an indurated base. On rectal examination, two or three inches from the anus, I could feel a sort of indurated cylinder, split on the anterior wall where the mucous membrane seemed healthy. It was movable.

On questioning the patient, she said that in April, 1913, *i.e.*, a year ago, she began to have frequent calls to stool, but only expelled flatus or mucus, or at most a little liquid blood-stained matter. This gradually got worse, till October, 1913, when she began to have pain in the anus independently of defæcation, she also lost weight, and on admission she was decidedly emaciated and cachectic, so much so that I could not entertain any idea of a radical operation.

The symptoms in the two next cases differ from the preceeding. In one, a woman, æt. 54 years, colotomy had been formed by Schwartz a year before. Her first symptoms dated back to March, 1911, consisting of frequent calls to stool, usually with the expulsion of blood-stained mucus. These symptoms persisted for eighteen months, during which period she consulted several practitioners. Constipation was well marked. Ultimately she went to the St. Antoine Hospital, where cancer of the rectum high up was diagnosed, and an artificial anus was made. The salient features in this case were frequent vain calls to stool with little or no bleeding.

The next case is that of a pale woman, æt. 65 years, upon whom I operated, resecting the recto-vaginal septum. Her principal symptom was early persistent pain. It was in March, 1913, that defæcation began to be painful, the pain persisting after the act and becoming worse when she made any sort of effort. She lost weight, and two months later she went to the Broca Hospital, but an attempt to examine her proved vain on account of the pain it caused, and she refused admission until February, 1914. I examined her under an anæsthetic, and took advantage of the opportunity to make an artificial anus. The whole rectum was cancerous and ulcerating.

The two most constant symptoms at the onset, then, are bleeding and frequent call to stool. This early bleeding does not always occur in exactly the same way. Sometimes the motions are merely streaked with blood, while at others there is pretty free bleeding after defæcation. In this case the blood may be red or, should it have sojourned in the rectum for a time, it may be more or less black. I cannot insist too strongly on the diagnostic importance of these early hæmorrhages. We meet with much the same thing, it is true, in piles, but in spite of this the occurrence of bleeding renders it incumbent on us to explore the rectum. The bleeding is doubly significant when accompanied by frequent desire to go to stool.

This latter symptom is common to stricture from any cause, and indeed in rectitis from any cause, but when associated with blood-stained oozing we must be suspicious.

I give prominence to these two symptoms because practitioners are particularly apt to go wrong in reference thereto, the bleeding being ascribed to piles and the frequent desire to empty the bowel to enteritis. We next come to two other symptoms, *viz.*, constipation and pain. Constipation is pretty constant, but may be wanting or not very pronounced. Why is this? Let us consider the structure of the rectum. It is divided into three portions, a middle segment, about 4 inches long and from 4 to 6 inches in circumference, this is the rectal ampulla. Above this is a part about an inch in length and two or three in circumference, and a third part, the anal segment, an inch long, surrounded by the sphincter muscle, converting it into a potential cavity. Now cancer is by far more frequent in the central segment, to the extent of two thirds of the cases, 20 per cent. are situated above it and only 10 per cent. in the anal segment.

While cancer of the large intestine has a marked tendency to become annular, cancer of the ampulla is usually in patches or as an incomplete ring leaving a band of healthy tissue. I am convinced that this is almost always the initial form.

Let us see how these anatomical data bear on the constipation. To begin with, at any rate, as the obstruction is incomplete, the resulting constipation does not differ essentially from ordinary constipation due to intestinal paresis, in a few instances we get diarrhœa, or what is described as diarrhœa, but when we come to enquire into this we find that it is really pseudo-diarrhœa (of glairy mucus) masking more or less refractory constipation.

The symptom pain is the most variable. As a rule patients only complain of some discomfort, of a feeling of weight in the fundament or of "unsatisfied defæcation." Sometimes, however, there is actual pain during defæcation persisting for some time afterwards; in fact it may not subside altogether, even between the efforts at expulsion.

These symptoms gradually increase in severity as the case progresses, the bleeding becomes more copious, the constipation more and more obstinate, the desire to defæcate more frequent and more imperative, and at the same time the pain increases, and the general health shows signs of deterioration, though it may be that the patient retains the appearance of health for a long time, so that too much importance must not be attached to cachexia in the diagnosis of rectal cancer.

In cancer of the rectum high up the symptomatology resembles that of sigmoid cancer, *viz.*, in addition to the passage of blood-stained mucus there is gradually increasing constipation and attacks of very characteristic colic, as in all cases of cancer of the large intestine.

Another variety is anal cancer, whether the cancer be limited to the anus or be ano-ampullar. Here the predominant symptom is pain, the cancerous ulceration giving rise to all the symptoms of anal fissure; spasm and pain during and after defæcation and the inguinal glands are involved.

In nine cases out of ten the introduction of the finger into the rectum suffices to establish the diagnosis. In cancer of the ampulla we find an indurated patch with an irregular raised outline or a projecting mass of indurated tissue surrounding an ulcer. In the annular form the indurated patch extends more or less circumferentially round the gut, and when the ring is complete it feels like cancer of the uterine cervix because, as the result of a certain degree of invagination, the cancerous ring plunges into the subjacent portion of the ampulla forming culs-de-sac round the tumour.

Cancer of the anal portion does not present any difficulty of diagnosis unless it happens to have given rise to inflammatory lesions when the mixture of neoplasm and inflammation may lead us to suspect a mycotic, a tuberculous or a syphilitic lesion.

In some exceptional cases of cancer of the rectum the diagnosis may present more or less difficulty, but in the immense majority the danger is not that we may mistake the significance of a tumour discovered on examination, but that we may overlook its existence owing to our not having made this indispensable examination. Therefore, whatever be the age of the subject, however healthy he may look, whenever he presents the symptoms described above never fail to institute a rectal examination. Omission to comply with this injunction entails the gravest consequences to the patient and great damage to the reputation of the defaulting practitioner. On our early diagnosis of these cases depends the future of the patient, because early operation is not infrequently followed by complete cure and in any case by marked prolongation of life.

Note.—*A Clinical Lecture by a well-known teacher appears in each number of this Journal. The lecture for next week will be by Dr. Henri Daueset, Assistant in Physiotherapy at the Medical Clinic of the Hotel-Dieu. Subject: "The Utilisation of Ultra-Violet Rays in Medical Therapeutics (Quartz Lamp and Vapour of Mercury)."*

ORIGINAL PAPERS.

EXPECTANCY AND EXPEDIENCY IN GYNÆCOLOGY. (*a*)

By H. MACNAUGHTON-JONES, M.D., M.Ch., F.R.C.S.I. and Ed.

We may gauge the utility and value of any medical discourse by viewing it from two aspects. There are the new and original ideas, the outcome of research and discovery, which elucidate hitherto obscure phenomena, whether clinical, physiological, or pathological, and which remove the treatment of disease from the region of empiricism to that of rationalism. When such knowledge is further enriched by the test of experience, showing the definite results of its practical application, we have combined in the teaching the most reliable and practical signpost on the path of progress. Comparatively few, here and there, out of the many thousands of workers the world over, can claim to have a place in the ranks of such instructors and pioneers in medicine. All honour, however, to the self-sacrificing and laborious workers who, if they cannot reach the heights of epoch-making discovery, devote much of their lives to unravelling the mysteries of the physical phenomena at work in the human organism, and in verifying by experimental research the theories and views of more fortunate collaborators.

Again, there is always something to be learned from any review of difficult situations which a large individual experience can recall, and in which failure has been a more apt instructor than success. Such a discourse may be commonplace, but it is just the commonplace everyday happenings that meet us surgeons in our work. He who is well equipped to deal with these is best fitted to foresee and detect exceptional difficulties that arise, and in which timely warning of danger is the surest safeguard against failure. In these times of international strife and bitterness, we workers in medicine have at least this consolation—that alike to friend and foe we can say, "We are brothers the world over in a common bond, as allies in the struggle in a war against disease and suffering"—the cosmopolitanism of medicine is a link that neither time nor race can touch.

There are real dangers associated with this age of universal activity in research and experimental work. Directly and indirectly they have a bearing on my subject. The first is the premature acceptance of theories which have not been verified on sufficient evidence. Such exceptions involve the relinquishment of established methods which have stood the test of time, and the results of which, if not all we would desire, have been most useful in the saving of life. The second evil, of which in the last decade we have had overwhelming evidence, is the booming of therapeutical remedies, operative, clinical, and pharmaceutical, and their experimental use under widely differing conditions, without the needful discrimination of their indication according to the stage of the disease, its complications, and the idiosyncrasy or constitutional contra-indications in the individual patient. The sacrifice of invaluable time occupied in futile efforts at cure, is a common source of ultimate disaster. We have to remember that the opportunities which prevail in a hospital clinic for observation, and the careful selection of favourable cases in which to test the effects of treatment are not always present in everyday practice. In the room of the consultant the patient is often seen for the first time, and in the light of a comparatively hurried examination, though in not a small proportion of cases an anæsthetic is absolutely necessary to make a satisfactory diagnosis. Thus we cannot hope for such a percentage of favourable results as are vaunted in statistical summaries from practice in Institutions in which every possible anticipative and preventive measure against failure can be secured.

Let me by no means be taken as having the least desire or intention to depreciate the splendid gains and advances recent years have brought to our science through the use of various vaccines, the external and internal use of radium, the application of the X-ray, the administration of hormones and the arrest of cancer by certain therapeutical agents. Yet I do mean to urge that in each and all of these means their employment has to be under the control of skilled supervision; that the stage, extent, and complications of the affection have to be carefully considered, and that their continuance should be dependent on the effects which are apparent when a reasonable time has elapsed sufficient to test their action and efficacy.

My reasons for choosing the title, "Expectancy and Expediency in Gynæcology," will be obvious before its close. Let me first state what I understand by these terms. I think I may define expectancy as the "wait-and-see" policy of gynæcology. It is the Micawber rule of life applied to this branch of medicine, and especially to its surgery, and I know of no section in which there is a greater leaning to adopt this attitude in practice than in gynæcology. This, in a measure, may be accounted for by these facts. Many of the pathological states of the genitalia in their nature and clinical signs are concealed from observation. Also, they are often painless, and most women have a marvellous power of bearing inconvenience and pain to an extent of which the male sex is utterly incapable. All of us can recall instances of women coming for advice (for the first time), and having put off that of their medical attendant to do so earlier, when we have been amazed at the endurance which must have been present over months or years of suffering, possibly at last ending at the cost of life. I have known a woman with scirrhus of one ovary weighing over seven pounds and a large adeno-fibroma of the other, who was under the impression that she had conceived, and only sought advice when some time elapsed and there was no sign of labour. A patient came to consult me whose only complaint was that recently she had had difficulty in emptying the bladder, and that on a few occasions the urine had to be drawn off by her doctor. She had a large double pyo-salpinx, and a parametritic infiltration reaching half-way to the umbilicus. A lady was sent some distance to see me, and except that of late she had been inconvenienced by the size of the tumour, she made no serious complaint of pain or any very special distress. I removed a uterine fibroid weighing over 28½ lbs. Another patient, who had extensive carcinoma of the cervix and fibroma of one ovary, refused to have any

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(a) Address delivered to the Nottingham Medico-Chirurgical Society (illustrated by lantern slides), November, 1914.

medical advice until examined by me for the first time.

True, these are exceptional instances, but it is a matter of everyday experience how much some women will suffer and uncomplainingly endure before they seek skilled advice, or submit to examination. And so they drift into some grave pathological condition, from which a serious operative step can alone save them.

Of course, there is the opposite type, in which we find extreme susceptibility to pain and a tendency to exaggeration. Here there is just the danger that the woman may be looked upon as neurotic, hysterical, or a *malade imaginaire;* or her symptoms may be assigned to some menstrual irregularity or the menopause, and she is treated with palliative remedies, anti-spasmodics, uterine sedatives, amenagogues, hypnotics, massage, electrical and spa cures. Then, when an examination is made, some congenital malformation in the genitalia, uterine displacement or enlargement, a floating kidney, or, later on in life, the trouble which has been assigned to the menopause is found to be due to a malignant degeneration of a myoma. Of all medical terms that we gynæcologists have to be most careful in uttering without satisfying ourselves of its accuracy in applying, that one is *neurotic.* The complete misapplication of the term hysteria is a matter of common experience.

Turn we now to my second heading, Expediency. George Eliot defined it somewhat in this fashion—as a damnable doctrine which, like an old felt hat, we might turn into any shape that suited the taste or fancy of the wearer. Such expediency may demand the covering up of the results of indecision and error, the evasion of the risk of operation, and the closing of our eyes to the fact that by letting the woman alone and trying uncertain alternatives, we are subjecting her to much greater danger than by accepting such risk.

On the other hand, there is the expediency which excludes every consideration save the highest good to be attained in the action taken or the course pursued. This is the expediency which since a thing is right makes it, as Tennyson says, "wisdom to follow right, even in the scorn of consequence." Such expediency rejects every influence which cannot bear the ethical test of the complete elimination of self when the decision as to yes or no has to be made. Suffering is prolonged, and life may be lost, through delay in doing the right thing at first, and allowing other motives to sway our judgment and advice than the simple one of determination to act in the present so as to save the woman from probable or even possible eventualities in the future.

There comes a day in the history of every case in which if an affection does not yield to the usual remedies, when the assistance of the chemical, bacteriological, and pathological laboratory has to be sought in order to settle definitely the cause of failure. The condition may be such as to demand also either cystoscopic, sigmoidoscopic, or X-ray examination; it may be all three of these. This is the critical time for action, and our decision depends on the report we get.

Possibly a previous examination has disclosed a doubtful tumour in Douglas, a rectal growth, a sacral tumour, an ovarian or salpingeal swelling, or confirmed our suspicion of an ectopic gestation. Should the womb have been curetted, the pathological report may show the degeneration of a myoma, carcinoma of the fundus, adenomatous changes, decidual structures, or evidence of chorio-epithelioma. In each of these conditions immediate action is called for. Interference of friends, dislike to operative measures, hesitation as to an exact diagnosis, consideration as to the patient's ways and means must be brushed aside; we free ourselves of responsibility by advising, irrespective of all consequences, the correct line of action.

Let me briefly notice two of the extra pelvic complications not infrequently present with some affection of the genitalia. I do not hesitate, though it is outside the gynæcologist's pelvic sphere of operation, to include misplaced and movable kidney in this category, if only for this reason, that this source of a woman's suffering is not infrequently overlooked, and especially is this so when it complicates some functional pelvic affection to which the attention of the practitioner is more directly drawn. The first step in each examination is the exclusion of this renal abnormality. Independently of the serious associated digestive and nervous troubles, there are the pathological changes which are apt to follow in an enlarged and loose kidney. I do not under-estimate the relief which, in certain cases, may be obtained from a course of rest and feeding with the application of a carefully adjusted support. Immediate and lasting relief may be looked for from an effectual nephrorrhaphy, and in a fair proportion of cases it is the only satisfactory remedy. I know of several instances in which years have elapsed since the kidney was fixed, and in which permanent relief from various serious and persistent symptoms has been obtained. This is no uncommon experience.

Another structure outside the pelvis which must be included as within the gynæcologist's domain of action is the appendix. We now know, thanks mainly to the original work done by Dr. Douglas Reid, of Cambridge, the embryological and anatomical reasons why infection travels from the appendix to the ovary or in the reverse direction, and possibly from the right to the left side, as also why adhesions of one to the other are occasionally found. In many instances we find a difficulty in saying which of the two, ovary or appendix, is the greater culprit, or if both are not equally responsible. Hence we recognise how essential it is not to overlook this possible complication in any examination of the adnexa. If there be persistent localised pain, with tenderness over McBurney's or Lanz's point, especially if with this there be any fulness in the right fornix, immediate operation is called for. Procrastination involves the risk of peri- or retro-cæcal abscess, and possible rupture of the intestine. Apart from this, there is the chance of infection of the tube and ovary. Incidentally, I might urge, seeing how frequently some obstruction, twist, adhesion, or disease of the appendix is found when operating on the genitalia that it should always be inspected, and if unhealthy, removed. We can, of course, suppose an exceptional case in which even the short delay involved might prevent this.

There are indisputable facts connected with the adnexa which it is important to emphasise in dealing with the expectant plan and the excuse of expediency. As regards the Fallopian tube, these are (1) a large proportion of its affections are incurable by any means save operation. (2) Primary tuberculosis and malignant degeneration may commence in the tube and carry infection to other organs and parts. (3) Infective purulent discharges escape from the abdominal end, or as the result of rupture, lighting up pelvic or general peritonitis, which may prove fatal, or involve the genito-urinary tract through the bladder to the kidney. (4) Hydro-salpinx is often the precursor of pyo-salpinx or hæmato-salpinx, hæmatoma, and pelvic abscess. (5) A twisted Fallopian tube may be the cause of unbearable pain and tubal hæmorrhage. (6) The rupture of a tubal ectopic sac may be fatal.

When we are confronted with an adnexal swelling it is often impossible to differentiate, and say if it be tubal or ovarian, or both. Operation alone can decide. Take, for example, a true tubo-ovarian cyst or abscess when the fimbriated end of the tube opens into the ovarian cyst or abscess cavity. Frequently we find tube and ovary matted together, and with both there may be the appendix. The possibility of an accessory Fallopian cyst or pyosalpinx has to be remembered. I have recorded three cases of primary tuberculosis of the Fallopian tube, and so far as I know, all three women are well to-day, while one has had three pregnancies at full time, including twins. In this latter case, nine years subsequent to the operation I removed the other tube and ovary for pyo-salpinx. No trace of tubercle could be discovered in the adnexa. In none of these cases was the ovary or uterus affected.

There is a specimen of mine of extensive infiltration of one tube with carcinoma in my collection in the College of Surgeons of Ireland, where there was no evidence of any invasion in any other pelvic organ.

Most of the reasons for deprecating delay in action in the instance of the tube apply with equal force to the ovary. Nothing is more remarkable than the comparative rarity with which, as contrasted with the days of Spencer Wells—to whose name and memory I make this tribute in passing, which his genius and courage deserve—large ovarian cystoma are now seen. The only one in recent years that I have met with was in a patient who refused all advice to have an operation until symptoms of so serious a nature appeared that she was obliged to consent. Here the girth at the umbilicus measured fifty-eight inches. The early diagnosis of cystic and other degenerations of the ovary has brought with it the saving of untold years of suffering and life. Now that pathology has demonstrated the stages in lutein tissues that lead to various cystic formations, hæmorrhages, and degenerations in the ovary, and has traced the histological changes in the stroma that culminate in fibrotic and various malignant growths, we have clearer views as to the pathological eventualities that cannot be ignored in the case of an enlarged or prolapsed ovary. Primary malignant and tubercular degeneration occur in the ovary as in the tube.

There is a fact it is well to emphasise—namely, that the suffering and distress caused by sclerotic and cirrhotic changes in an ovary are out of all proportion to our findings in size or sensitiveness on examination. The contraction and follicular obliteration caused by the cirrhotic change; the interference with normal, ovarian metabolism due to the fibrosis; the sclerosis of the tunica and vessels, have a profound effect on all the phenomena of menstruation, both physical and psychical. It is in such cases that we frequently find the victim of severe dysmenorrhœa, with neurasthenic and psychasthenic symptoms. The normal metabolism of the ovary during the greater part of the woman's life is the key to the even play of action and reaction in her physical and mental functions, and the maintenance of her whole health. I have known women who were on the verge of insanity and subject to the morphia habit completely cured by the removal of sclerosed and cirrhotic ovaries. Judgment, however, has to be exercised, for the complete removal of ovaries in which there are healthy areas, and the bringing on of a premature menopause cannot be too strongly deprecated. Resection of the affected ovaries with removal of the sclerotic and cystic portions gives complete relief. Restoration of normal menstruation follows. Both in the tube and ovary conservative surgery has an important place in the operative therapeutics of the adnexa. Also, in the present-day pharmacopœia of the gynæcologist, there are the various ovarian and lutein preparations with collateral treatment that may be given a trial; but, should these fail, conservative operative resources are still available.

To deal satisfactorily with the uterine affections in which the expectant attitude leads to disaster, is not possible. A short summary of a few common instances must suffice. Pain, discharge, and hæmorrhage are the commonest symptoms for which the woman seeks advice. The first of these, as I have already said is often absent. Its character, persistency, and situation are premonitory warnings and indications, useful in diagnosis, which we cannot ignore. "Never neglect pain," was an aphoristic dictum of an old teacher of mine; to this I would add, "nor despise it." The thorough examination, microscopical and bacteriological, of any discharge from the genitalia must ever be one of the first principles of treatment. The result, taken with the physical signs present, will decide our attitude to the case. A young married woman, in the early months of pregnancy, consulted me for severe pain and considerable uterine discharge. Examination of the latter proved it to be gonorrhœa. The uterus was emptied, thoroughly curetted, and treated with iodine applications. She was apparently getting quite well when sudden pain and symptoms of pelvic peritonitis threatening to become general set in. I opened the abdomen, and found the right tube enlarged, with pus pouring from its outer end. There was a layer of inflammatory exudation covering the broad ligament. I removed the tube and the uterine cornu, and cleared off all the exudation. She recovered rapidly. The tube for its entire length was invaded with gonococci.

A word on the invaluable aid in diagnosis which we have in curettage. The *débris* of every curetting should be most carefully examined and reported upon. Conditions of approaching or actual malignancy which cannot otherwise be discovered are disclosed. We may find evidence of gonorrhœa or tubercle, and if there be an adnexal swelling immediate interference is called for. I recently showed a uterus at the Royal Society of Medicine in which there was no suspicion of malignancy; there had been a chronic discharge, and the cervix was deeply eroded. I removed part of the cervix and curetted the uterus. Examination proved that the portion of the cervix amputated was benign, while the curettings were carcinomatous. When the uterus was removed a growth was found projecting into the cavity which proved to be an adenoma-carcinoma. The degeneration extended only a short way into the uterine wall. The adnexa were healthy.

Myoma and fibromyoma of the uterus are conditions that demand special consideration in connection with my subject. There can be no doubt that some women are fortunate in suffering but little from a uterine tumour. Size, situation, direction of growth, absence of hæmorrhage, freedom from attacks of fibrosis, arrest of growth, and the temperature of the woman in a great measure explain this. I knew a most valuable and experienced gynæcological nurse who, both at the operating theatre and at the bedside, could go through great fatigue, and yet had a fibroid tumour reaching to the umbilicus. Further than that, every now and then, through an excessive period she did not appear to suffer, and she would not listen to any question of operation. We have all met such cases.

From an Alpine climber, an unmarried girl, æt. 32, I removed a degenerated myoma, in which was a læge telangiectomatous cavity, with but a comparatively thin wall anteriorly separating it from the peritoneum. Only a short time previously had she complained of the pain, and of feeling "a lump inside." She has made many mountain ascents since then.

A few months back I removed a fibroid from an unmarried woman, æt. 47. Her main trouble had been what she described as "indigestion." She had not complained of any special uterine symptoms. When examined by her physician, he discovered a fibroid. For some time her periods had been excessive. On removal of the tumour there were found altogether twenty separate nuclei, varying from the size of a pea to that of a pigeon's egg, two occupying the uterine cavity, while embedded in the wall a number of other nuclei was embedded. The time that these must have taken to develop and grow must have been considerable.

These, however, are exceptional instances, and there are certain clinical and pathological facts which never can be ignored. Myomata are frequently subject to various degenerations, principally cystic, mucoid, suppurative, telangiectomatous, hyaloid, calcareous, sarcomatous. Any one of these may bring with it symptoms incompatible with health or life; pressure on the bowel, bladder, and ureters is a very common effect. Cardiac disease is present in a certain proportion of cases. With such a tendency it is not surprising that the great majority of women suffering from myomata ultimately break down in health; yet many only as a last resource come to operation. Up to a certain point there is no question of expediency in regard to operation and expectant treatment is justifiable.

Here I may make a brief reference to the treatment of fibromata and cancer by the X-ray and radium. Such treatment has now received an extensive trial. It may not be amiss to epitomise so far as is possible the principal conclusions which have been arrived at. There is not a little that is contradictory in the opinions and experiences of some of those who have most freely availed of both the Röntgen and radium therapy. With regard to the X-rays, there are certain effects that we may look upon as definite. The rays have a distinct and powerful effect on the ovaries, materially altering their histological character and reproductive elements, thereby introducing an artificial menopause and causing sterility. They act on the muscle cells and blood vessels of fibromata, causing a general atrophy with arrest of growth and shrinking of the tumour. Hæmorrhage is arrested, and if the treatment be successful there is a marked diminution or complete cessation of the other clinical symptoms. They are contra-indicated where there is inflammation of the adnexa, if there be a malign change in the myoma, in sub-serous growths, and those involving the vagina. Needless to say they cannot be availed of when the symptoms are too urgent for surgical intervention to be delayed. Certain vital points connected with their use have, however, to be considered. Their application is not altogether devoid of the risk of grave dangers from their effects, and these can only be obviated by exceptionally skilled hands, and when every precaution is taken against disaster. Their use has to be continued for some weeks, if not months, in the majority of cases. Opinions are divided as to dosage, some being in favour of very powerful, and others of weak and repeated, doses.

In younger women we have to face the probable sterilisation of the ovary and obliteration of the ovarian function with its consequent physiological and psychological effects. The complication of an ovarian cystoma with the fibroma would certainly be a contra-indication. The difficulty of diagnosis as to the nature of the degenerative change in a tumour, and commencing or associated malignancy, cannot be overlooked. Take such a case as that I have already instanced, and another I shall show presently. Many cases have been recorded in which subsequent malignancy supervened in the tumour after Röntgen treatment. All these effects, and possibly others which I have omitted, have to be taken into consideration with the circumstances, financial and otherwise, of the patient before the decision is made to resort to Röntgen treatment.

Radium has been used in a variety of uterine and peri-uterine affections, such as fibroma, metritis and perimetritis, but it is with regard to cancer only that I wish to speak. There is ample evidence to prove that in a certain proportion of cases radium does act most beneficially on the malignant growth, and arrests or materially modifies the clinical signs and symptoms which usually accompany the disease. But if we come to look for satisfactory evidence of final cure, I do not think that we can yet say that the results are very convincing. In certain inoperable cases, both of the uterus and vagina, great benefit has been derived from radium, as also when there has been recurrence after operation. Some authorities have reported good results from its use, both before operation and after. On the other hand, the disease in some patients continues to extend rapidly, despite its employment.

Dr. Pinch, the able director of the Radium Institute, in a communication he has just sent me, emphasises these points:

(*a*) It is absolutely wrong to regard radium as a cure for cancer of the genitalia, though in many cases of fungating and ulcerating carcinoma of the cervix, the results are marvellous, exceeding any other known method of treatment. He instances cases in which the symptoms have been in complete abeyance for two years.

(*b*) Epithelioma of the vagina and vulva are less satisfactory; that attacking the mucous membrane is the more intractable. He quotes a case, however, in which the disease, microscopically verified, has, up to the present, been completely arrested.

(*c*) He has known cases in which the disease was pronounced inoperable, rendered operable by radium treatment.

(*d*) He is of opinion that exposure to radium after operation, though not positively preventing recurrence, does delay it.

(*e*) After extensive pelvic operations, as, for example, Wertheim's, the greatest care must be taken accurately to calculate the doses; otherwise, owing to the wide-spread impairment of the atrophic nerves, extensive tissue destruction may follow.

Arrest of growth and reduction in size, with the spontaneous cure of a myoma, do very rarely occur, but so seldom that we cannot take this fortunate solution into serious consideration in treatment. One factor in the success of operation must be clearly kept in mind, and impressed on the patient and friends: delay impairs the health, lessens resistant vitality, and also allows local complications to occur, which increase the severity and length of the operation and the final percentage of its risks.

Of nothing can we be more emphatic in our condemnation of the danger of delay than in those conditions which frequently lead up to malignancy. A high amputation of a suspicious cervix done in time would often save all the dire consequences of carcinoma. Deep erosions and follicular degeneration—the cervicitis that attends on old lacerations and polypus—are occasionally the precursors of carcinoma.

The menopause is a trap which often leads the unwary into trouble. Discharge is overlooked, pain is absent, unusual or intermittent bleeding is assigned to "the change," and so the woman drifts with a degenerating myoma into malignancy; or examination reveals an intra-uterine fibroid or carcinoma, and we know how frequently we meet with such conditions after the menopause has passed. The old idea that the post-climacteric years were comparatively safe from malignancy has been exploded.

We must not lose sight of the fact that the vagina is occasionally the seat of primary carcinoma. It is more usually found in the posterior wall. It may commence as a papillary excrescence, a nodule, or an infiltration. The nodular or nest variety grows more quickly than the tubular, and in it there is more rapid dissemination and metastasis with glandular involvement. In fact, such gland implication may be the first indication of malignancy. Pain, discharge and bleeding are the more frequent symptoms, and the post-climacteric period the time of most common occurrence. Its possible source in the ulceration caused by a pessary should not be forgotten.

Sarcoma is still more rare, and, as compared with carcinoma, is found more frequently in younger women. We have to be careful not to mistake it for myoma or a cyst of the vagina. If there be ulceration, sarcoma may be mistaken for carcinoma, syphilitic or tubercular ulceration.

There is no time to dwell on the many affections of the vulva which, apparently benign in their incipiency, are apt to degenerate into malignancy. Once we are apprehensive of any leucoplakic, eczematous, or papillomatous patch of surface, the only safe course is to remove it. Temporising allows for and favours lymphatic transmission and glandular infection, to be followed by extension of the disease until it is ineradicable.

My object in this address, which your President honoured me by inviting me to give, is now fulfilled. It may appear to be late in the day to raise a voice against procrastination in gynæcological work. And I should not have done so only that I feel that, with all our advance, it is still called for. The great majority of those who have the fate of women in their hands are engaged in general practice. Long before the patient is seen by the consultant the propitious time for radical interference may have passed. This means years of useless suffering, increased risk of operation, and lessened chance of complete and permanent cure. Is it not a fact that such consequences of delay are yet not infrequently seen? I propose to show on the screen photographs and drawings which will illustrate several of the conditions to which I have referred.

INTESTINAL STASIS: A METHOD OF TREATMENT. (a)

By ALEXANDER BLAYNEY, F.R.C.S.,

Surgeon to the Mater Misericordiæ Hospital, Dublin.

In the few remarks which I propose to make to-night I do not intend to make any attempt to deal with intestinal stasis in all its aspects; the subject is too vast, and would require several hours to deal adequately with it, if I were capable of doing so, or even to deal with it inadequately, as I should more probably do. The object which I have in view in this contribution is merely to relate the experience which I have had in carrying out one operation, which has been designed for the relief of symptoms which depend on a mechanical interference with the action of the large intestine and the consequent delay in the fæcal stream.

In the course of my remarks I intend first to relate the history and symptoms usually given by patients for whom I believe this operation to be suitable, the conditions which are commonly present inside the abdomen, the details of the operation itself, and, finally, the results so far as I can speak of them. The operation has only comparatively recently been done by me, so that I cannot speak with any confidence of the ultimate results.

First as regards the history. In most cases the patients are women, who generally tell you that they can scarcely remember the time when a regular daily action of the bowels was the rule with them. They frequently say that in early life they did not pay any particular attention to the acion of the bowels, and were quite content with a motion every third or fourth day, or even once a week. I may say that I believe that frequently the origin of subsequent bowel trouble lies in the fact that most young people are ignorant of the importance of having a daily evacuation from the bowels, and are consequently careless about securing this result.

When the constipation has lasted for some time, some of the ill results which it entails begin to make themselves felt. They generally take the form of impaired appetite, lassitude, headaches, and discomfort after food, due to flatulent distension. Purgatives are now used, and for a time their regular employment affords some relief. Such, however, is not always the case. It is not unusual for a patient to tell you that the taking of a purgative has for its immediate result an aggravation of her symptoms, which would prevent her from using this remedy, were it not that she cannot procure an action of the bowels without its help. The further development of the symptoms varies. In some those referable to the stomach are most prominent, and not a few have been treated for gastric ulcer; pain after food, vomiting, and even hæmatemesis being present. In others pain referred to the right side of the abdomen is the most prominent feature. This pain is frequently diagnosed as having its origin in the appendix, in the ovary, or in the right kidney, which in these cases is nearly always abnormally mobile. Not a few of these patients have had the appendix or ovary removed without obtaining any relief from the pain. In one case which came to me the patient had been operated on seven or eight times. She had had her ovary removed, her appendix taken away, her kidney fixed, her gall bladder explored, and, in addition, had two or three operations for the separation of adhesions, with no relief. Lastly, in a few cases, the more aggravated condition described by Lane is met with. These patients suffer from continual lassitude, mental depression, want of appetite or even a disgust for food, clammy skin, cold hands and feet, and constant headaches.

Coming now to speak of the condition inside the abdomen, one generally finds a much dilated, movable cæcum, which is frequently dropped into the pelvis, and the hepatic flexure prolapsed downwards so as to be on a level with the iliac crest, or even lower. In most cases a well-marked Jackson's membrane, stretching from the abdominal wall to the ascending colon and cæcum, is present, and not infrequently the lower end of the ileum exhibits the condition known as Lane's kink. In one case on which I operated recently there was marked hypertrophy of the muscular coat of the lower end of the ileum, showing how much obstruction is caused by the condition I am describing.

(a) A paper read before the Surgical Section of the Royal Academy of Medicine in Ireland, November, 1914.

The first part of the transverse colon lies parallel with the ascending colon, to which it is often adherent. The middle part of the transverse colon often reaches down into the pelvis, whence it ascends almost vertically to the splenic flexure, which is nearly always in its normal position.

The condition of the duodenum, especially in those cases where gastric symptoms are prominent, calls for notice. The first stage is often found to be elongated and dilated, while on turning up the transverse colon it is seen that the third stage is prolapsed downwards for a considerable distance behind the mesentery of the small intestine, sometimes as far as the pelvic brim or lower, whence it ascends to its termination, where it may be kinked. This condition of the duodenum is one which is of considerable importance. In my earlier operations I did not pay as much attention to it as I should have done, and the results were naturally affected.

In most cases the right kidney is found to be movable. The intestinal conditions I have mentioned can usually be discovered by the help of the X-rays, and this method of examination is one that should always be carried out.

This being the anatomical condition, the question arises what means we have at our disposal to deal with it surgically. I would emphasise that I am now considering only those severe cases where the evidence of mechanical obstruction is clear. The two extremes are represented—on the one hand by operations which have for their object the suspension of the displaced organs to some more or less fixed portion of the abdominal wall, on the other by complete excision of the large intestine, with the exception of the rectum.

With regard to the former, I have carried out suspension of the stomach and colon, according to both Rovsing's and Coffey's methods, and, while the immediate results obtained were encouraging, the ultimate results were disappointing. Invariably patients have come back after an interval of a few months complaining of a return of their old symptoms.

Lane's operation of ileo-sigmoidostomy has never been regarded with much favour by me, and I have only carried it out on two occasions—each time with discouraging results.

Operations having for their object the removal of the Jackson's membrane, or the straightening out of the Lane's kink, have been devised, but I regard such operations as being unsound in principle. Jackson's membrane, whatever its origin, helps in suspending the cæcum, thus lessening the tendency to prolapse. It may by its attachment to the ascending colon give rise to narrowing of this part of the intestine in places, though I have never seen any case where I could say it gave rise to definite mechanical obstruction. Its division, while it may relieve kinks, must tend to further prolapse of cæcum, to which it acts as a suspensory ligament—which prolapse would, I believe, more than neutralise any good effects produced by the straightening out of the intestine. With regard to Lane's kink, whatever the view held as to the origin of the band which produces it—whether it is a crystallised resistance or a persistent fœtal fold of peritoneum—it also acts as a suspensory ligament of the cæcum, to which it tends to give support. Its mere division must have the effect of allowing a more marked descent of the cæcum.

The removal of the whole of the large intestine is a formidable operation, and, judging by the results of another operation, the details of which I am about to relate, it is unnecessarily severe.

This procedure, the one which I am concerned with this evening, is an operation suggested by Patterson, and consists of the removal of the cæcum, ascending colon and greater part of the transverse colon. It thus removes the part of the large intestine which is most frequently at fault, and in which, as shown by X-ray examination, delay of fæces most commonly takes place. At the same time it leaves behind a considerable length of colon, so that there is still sufficient of this to enable the absorption of the watery elements of the intestinal contents to take place, which absorption is probably the principal function of the large intestine.

Furthermore, by relieving the stomach of the drag produced by the weight of the loaded transverse colon it tends to remedy the downward gastric displacement which is frequently present.

The method which I have used in carrying out this operation is briefly as follows:—The incision is made over the outer border of the right rectus muscle, beginning at the level of the umbilicus and extending downwards for about four or five inches. This may seem a rather small incision, but in most cases it will be found to be quite ample. The anterior layer of the rectus sheath is divided for the full length of the incision, the edge of the muscle drawn inwards and the posterior layer of the sheath divided. It is sometimes possible to avoid dividing the nerves which run in the posterior layer, but generally one of these has to be sacrificed. The cæcum, the ascending colon, and the adjacent part of the transverse colon can now usually be drawn completely outside the abdomen. If Lane's kink of the ileum be present, it will be necessary to divide the membrane which binds down this part of the intestine. Beginning above the situation of the kink, the mesentery of the ileum, cæcum, ascending colon, and tranverse colon, up to the point where the latter begins to rise towards the splenic flexure, is transfixed and tied by series of ligatures. The mesentery is then divided between the ligatures and the intestine, so that the latter is completely free except at the two ends. In carrying out this part of the procedure it is necessary to see that the ligatures are tied very tightly, and that the mesentery is not divided too close to the ligatures, as otherwise one of the latter may slip—an accident which happened in one of my cases. The ileum is now crushed, and the crushed portion ligatured. The distal part is then clamped, and the intestine is cut through just beyond the ligature. The end to which the ligature has been applied is invaginated by a double row of Lembert sutures. A similar procedure is carried out with the transverse colon, thus completely freeing the part of the intestine to be removed. The ileum and transverse colon are now clamped as in the operation of gasto-enterostomy, and an anastomosis between these two portions of the intestine is done. The loop formed by the free edge of the mesentery of the ileum is then closed by suture. On now examining the back of the abdominal wall it will be found that there is a space denuded of peritoneum. This space can be considerably reduced by a suture, but in most cases some space will be left. I consider it advisable that a drainage tube be inserted to drain this area. This tube may be brought out through the wound or inserted through a puncture made in the loin. The abdominal wound is then closed in the usual fashion.

The operation is rather a tedious one; the shortest time in which I have succeeded in doing it is an hour and a half. Notwithstanding the time required, and the fact that the patients are always in a rather poor condition, the operation is usually very well borne. In only one case was the shock severe, and that was the case of a patient who had been bed-ridden for a number of years owing to rheumatoid arthritis. In some cases I have used novocaine and quinine and urea hydrochloride, according to Crile's *technique*, apparently with some benefit, especially in the reduction of subsequent pain. In a few cases I have thought it advisable to give an injection of pituitary extract to combat the shock.

The subsequent progress of the patients is usually uneventful. In a few cases some suppuration has occurred in the neighbourhood of the drainage tube.

A purgative is generally administered on the third day, the one which I recommend being castor oil. In some cases where mist. sennæ co. was used the patient suffered from diarrhœa, which continued for some days.

I have now operated on twenty-one cases with three deaths, giving a mortality of 14 per cent. This is, of course, much too high, but I think the mortality is capable of being reduced almost to nothing. The three cases in which death took place were among my earlier cases. In one of these death was due to the slipping of a ligature, leading to hæmorrhage. In another death resulted from shock. This was the patient to whom I have already referred who had been bed-ridden for some years previously. She was in a very weak condition, and in her case, I think, some less severe form of operation should have been tried.

In the third case the patient, after the operation, was found to be vomiting everything she took. At first I attributed this to the effects of the ether, especially as her symptoms otherwise were quite favourable. When the vomiting persisted after the second day, it was obvious that some other cause was at work. The vomiting was of the regurgitant character seen in intestinal obstruction, and the vomited matter consisted merely of bile mixed with whatever liquid she had taken previously. It never assumed a fæcal character. I concluded that some obstruction had taken place in the duodenum and reopened the abdomen, doing a gastro-enterostomy, but she died of shock following this operation. No *post mortem* examination could be done, and at the time of the second operation, beyond determining that the stomach was much dilated and the jejunum contracted, I could not ascertain the exact cause of the obstruction.

I must express myself as being extremely well pleased with the results I have obtained by this operation. In every case, as soon as the patient was able to be up and about, the bowels have begun to act regularly every day. Appetite improves, headache and vomiting, if previously present, disappear. The patients rapidly acquire a feeling of comfort and well-being, a feeling which in many cases they have not experienced for years previously. Improvement in appearance is often remarkable; the sallow complexion which they generally present is soon replaced by an aspect of vigorous health. In only one case have I been told, in reply to my inquiries, that the patient is still troubled with gastric disturbances. In that case the displacement of the duodenum, to which I have referred, was very marked. There was a very distinct kink at the junction of the duodenum and jejunum, and she will, I fear, require an operation to remedy this.

In conclusion, I would express the opinion that in this operation we have an efficient and comparatively safe method of dealing with a condition which is frequently met with, and is the source of much misery to those who suffer from it.

DISEASE IN ITS RELATION TO ACCIDENT. (a)

By J. SMYTH MORROW, M.D., B.Ch.,
Physician to the Royal Victoria Hospital, Belfast.

Following Mr. Douglas Knocker, B.L., in "Accidents in their Medico-Legal Aspect," Dr. Morrow used the word "accident" in its widest sense, as "any mishap or untoward event which is not expected or designed," and pointed out that an accident in this sense might produce litigation on four grounds: 1st, an insurance policy; 2nd, negligence; 3rd, breach of contract; 4th, the Workman's Compensation Act of 1906, and its schedules of industrial diseases.

He cited cases illustrative of the first three groups, and dealt in more detail with the fourth group.

In the latter he dealt first with the intoxications, making special reference to alcoholism and lead-poisoning, subdividing alcoholism into chronic alcoholism, delirium tremens, and acute alcoholism or drunkenness. He laid stress on the fact that the chronic alcoholic must be regarded as a healthy man from the point of view of the one who injures him. The same held good in cases of delirium tremens, but with regard to acute alcoholism or drunkenness, if a workman was performing his duties in a drunken condition and met with an accident, such an accident would, under the Act, be held generally to be due to the man's serious and wilful misconduct, and the employer would not be held responsible. He illustrated this by a case:—

A workman at a local shipyard was found about 2.15 in the afternoon lying at the bottom of a ship's hold in a state of snoring unconsciousness. He had been missing from his work since 11.30 in the forenoon, was known to have been drinking during the dinner-hour, and had evidently fallen down a ladder into the hold on resuming work after the dinner-hour. He was taken in the ambulance to the Royal Victoria Hospital, where the house-surgeon used the stomach tube and relieved him of a large quantity of unmistakeable porter. The man had sustained a fracture of the collar-bone, and later on he claimed from the firm for compensation. His claim was dismissed by the Recorder on the medical evidence of drunkenness.

Lead Poisoning.—The dependents of a deceased workman could claim for death when they could prove that the lead poisoning was the case of death, but where the death was alleged to have been due to the sequelæ it was necessary to prove that the conditions found were in fact the sequelæ of that disease, not merely that they might have been. He gave an illustrative case:—

A painter in a local shipyard was seized with sudden unconsciousness and died in twelve hours. His doctor certified the cause of death as cerebral hæmorrhage. An examination of the body disclosed no blue line on the gums, nor had there been any history of colic, constipation, wrist-drop or ankle-drop. A catheter sample of the urine revealed no lead by the potassium bichromate test. There was the scar of an old chancre and some adenitis of the groins and neck. His doctor stated that some years previously he had treated him for a severe attack of syphilis, and the doctor, in the face of this fact, did not feel justified in advising the man's dependents to claim for death from lead poisoning, as they proposed doing at first.

(a) Lecture delivered at the opening meeting of the Session 1914-1915 of the Ulster Medical Society.

Diabetes Mellitus.—Dealing with this disease, the lecturer said that it was not an uncommon thing to find in cases of minor accidents where the healing process was going on with unaccountable slowness, that the patient was suffering from glycosuria, and that an improvement might be effected by attention to this latter condition. Cases arose where it was difficult to say whether the glycosuria existed prior to the injury. If the patient had been admitted to hospital at the time of the accident, an examination of the urine would have been made as a routine measure on admission, but in cases outside hospital the practitioner would be well advised to examine the urine early in all cases of interest. There was no doubt that injury to the spinal cord or brain could cause diabetes, but he had seen a case recently where there was no cord or brain injury. The patient was a typically neuropathic type of man who received contusions to his shoulders and back. Six weeks after his contusions had cleared up he started generalised tremors. Under examination his arms and legs shook until he perspired, and he simply yelled if touched anywhere. These were his only symptoms. The tremors were clearly under the control of his will to a certain extent, so that he could only be regarded as a mixture of neurasthenia and malingering. The doctors concerned did their best to effect a settlement, but the case dragged on for three years, at the end of which time the man's tremors were gone; but his anxiety about a settlement, which had all along been very marked, was now intense, indeed painful. His urine had been examined at intervals from the first, and now for the first time revealed sugar. Soon after he evinced delusions of persecution, and in June of this year was committed to the asylum at the instance of the police. He was improving, but the sugar still continued intermittently in his urine. He thought this an instance where the prolonged strain of the unsettled case, with its attendant worry, anxiety and privation, were responsible for the diabetes.

Specific Infectious Diseases.—Dealing first with pneumonia, it was recognised that septic pneumonia was a not infrequent occurrence from the result of an accident to some part of the body other than the chest, but it must be borne in mind that a pneumonia might happen to a person who had received an injury, and yet there might be no connection between the pneumonia and the injury. To take an instance :—

An elderly man—a shipyard worker—was struck on the forehead by a piece of iron on February 3rd. The wound was a slight one. He did not keep to the house, but moved about in the very severe weather that then prevailed. Six days after the accident he died from pneumonia. At the *post mortem* held by Professor Symmers the wound was found to be quite healthy, and the pneumonia was of pure lobar type. At the inquest Professor Symmers expressed the opinion that the pneumonia was unconnected with the accident and arose from natural causes, and the solicitor acting for the relatives of the deceased was satisfied with this view.

Syphilis.—The protean manifestations of this disease had to be watched for constantly in patients who had been subjects of accidents. Take an instance where a man at his work sustained an abrasion of the skin. It was slight at first, but went on to ulceration which rest and local treatment fail to cure. A history of syphilis is elicited. and possibly confirmed by a Wassermann test, and the exhibition of anti-syphilitic treatment would in a short time heal the ulcer, put an end to weekly compensation, and enable the man to resume his work.

To take another instance :—A man twisted his right knee at his work, deranging the internal semi-lunar cartilage. Later on he underwent operation for this, and a perfect result ensued so far as the knee was concerned. Soon after he complained of dragging of the toes of that foot, and evinced all the signs of an isolated paralysis of the external popliteal nerve. He had got hold of the notion that in the operation for the removal of the injured cartilage from his knee some nerves had been cut, causing the paralysis of his toes, which view was anatomically impossible.

His pupils were irregular, his knee-jerks sluggish, and the pupillary response to light was impaired. He admitted a history of syphilis. A Wassermann gave a doubtful result, but under antispecific treatment he speedily recovered from his paralysis and resumed his work.

Not infrequently one came across men following their employment while the subjects of fairly advanced locomotor ataxia. A Charcot's joint could be aggravated by, or sometimes was attributed entirely to, a twist received at work, and if actual evidence of an injury was forthcoming the firm had to shoulder responsibility. Or a fall in a dark alleyway on board a ship might disclose the fact that there had been no obstruction in the way to cause such an accident, but that the man's impaired co-ordination has been at fault.

General Paralysis of the Insane.—He related an interesting case where G.P.I. was unsuccessfully contended to be due to a head injury. A rivetter at the shipyard received a trivial cut on his forehead at the latter end of July, 1910. No report of the accident was made to the firm until September, when he ceased work as his mate would not work with him any longer on account of his peculiar behaviour. The lecturer definitely diagnosed G.P.I. in September, and considered it unconnected with the head injury, which was trivial and had healed perfectly without any adherent scar. At the examination he noticed the scar of an old injury in his arm, and on pushing inquiries he found that he had been attending hospital at a date antecedent to this head injury, viz., early in June, for this arm injury, received outside the firm. An investigation of the hospital records showed that the observant surgeon in the extern, when treating this arm injury, had noticed his irregular pupils, his facial tremors, and his grandiose talk, and had made an entry of G.P.I. in the Extern Case Notes. The case was brought to Court later on, but the Judge dismissed the claim on the medical evidence.

This showed, incidentally, the great value of a case note taken at the time.

Syphilitic Arteritis attacking the aorta and other large arteries and leading to aneurysms had to be borne in mind in cases of sudden death at work, and syphilitic endarteritis, with resulting thrombosis, presented interesting problems occasionally. Take the following case :—

A man, æt. 35, received a blow on the left side of the head when working in the shipyard. The blow did not render him *hors de combat,* and he resumed work next morning as usual. Three weeks later he developed aphasia and left-sided paralysis. He was taken to hospital, where the Wassermann test was twice positive, and syphilitic endarteritis, with resulting thrombosis, was diagnosed. He received anti-syphilitic treatment and recovered the almost normal use of arm and leg. Some time later he was again stricken with paralysis. Recovery was more gradual. The Wassermann test was again positive. In the Court the plaintiff's case, as put forward by his medical man, was the ingenious one "that the blow produced *contre-coup*." This was to explain the left-sided paralysis, but the aphasia could not be explained on this theory. The case was decided in favour of the employers on the medical evidence.

Heart Disease.—Sudden failure of the heart due, for example, to aortic valve disease or to long-standing intrinsic muscular degeneration, might cause a man to drop dead suddenly at his work, or to fall from a height, injuring himself, or possibly others, in his fall. Important questions of liability arose in these cases, and the most thorough investigation was required on the part of the practitioner in arriving at an opinion as to the true cause of death in cases of this kind.

Or valvular disease of the heart, with its secondary effect of embolism, might present a condition which might at first sight appear to be attributed to an accident. This might be illustrated by a case:—

A stager at the shipyard fell on a ship's deck, sustaining contusions of his left arm and knee. He insisted on being taken home instead of to hospital, and compensation was paid for fifteen weeks. At the end of that time I examined him, found that his contusions had cleared up, but that he was suffering from mitral incompetence and left hemiplegia. He said he never could understand why he fell at the time of the accident. The doctor attending him agreed with me that the man's condition was due to an embolic hemiplegia. We advised him, as the outlook as regards fitness for work was bad, to place himself in the hands of a solicitor. This was done, and the man's solicitor being satisfied that there was no legal claim, a gratuity was given to the man by the firm, the legal expenses paid, and the compensation terminated by agreement.

Diseases of the Alimentary System and Sudden Death.—Diseases of the alimentary system, while playing a considerable part in causing death, had not hitherto been regarded as responsible for sudden death as generally understood, and hence had not provided problems as to the relation of accident and disease such as heart disease provided; but the time appeared to have arrived to alter our views about this. Professor Symmers' remarkable series of autopsies on twenty-four cases carried in dead to the Royal Victoria Hospital, Belfast—persons who had simply collapsed and died, sometimes when at their work, and sometimes when not engaged in work—seemed to point to hæmorrhagic pancreatitis as being responsible for many sudden deaths, the cause of which had hitherto been regarded as obscure. Apart from their great medico-legal interest, the scientific interest of these cases was very great. It was difficult to correlate the phenomena evinced in these cases (alcoholic indulgence, sudden death, gastric hyperæmia of a peculiar form, and a necrotic condition of the pancreas) to the ordinary theories held regarding sudden death from shock. The result of Professor Symmers' further investigations was awaited with keen interest.

Dr. J. S. Wigham, as President of the Dublin University Biological Association, delivered last Saturday evening an inaugural address on "The Influence of Science on Modern Medicine."

OPERATING THEATRES.

ROYAL FREE HOSPITAL.

Operation for Bursa of the Semi-Membranosus.—Mr. Willmott Evans operated on a man, æt. 32, who complained of a swelling behind his knee. The patient had noticed the swelling for some six months, and it was steadily getting larger. While he was at rest it gave him no pain, but when he walked it interfered slightly with the use of the leg. On examination a swelling about the size of a bantam's egg was felt on the inner side of the right knee on its posterior aspect. When the limb was extended the swelling was tense, but fluctuation could be felt in it. As the knee was flexed it became less and less perceptible, and on complete flexion it could not be felt at all. The skin over it was unaltered and the swelling was firmly fixed. In every other respect the man was quite normal. A diagnosis of effusion into the semi-membranosus bursa was made.

The patient having been anæsthetised, and the skin painted with a 2 per cent. solution of iodine, an incision was made an inch and a half long over the long diameter of the swelling. The cyst was then laid bare and incised, and a few drachms of clear fluid evacuated. The greater part of the cyst wall was then cut away, the skin sutured, and a dressing applied.

Mr. Evans said of the many bursæ in the neighbourhood of the knee-joint, that which is most frequently affected is the prepatellar bursa, and next to it in frequency comes the bursa under the tendon of the semi-membranosus. The tendon is inserted into the inner tuberosity of the tibia at its posterior aspect, and also a little to the inner side, and the bursa, which is placed between the tendon and the bone above its insertion, is doubtless intended to prevent friction between the tendon and the bone. Therefore it would come most into use in the fully extended position, and the frequency of its enlargement is probably due to some sudden action of the muscle bruising the bursa when the leg is fully extended. The infusion into the bursa will cause some little disability in the movements of the knee, but it never causes much pain. The diagnosis is easy. A fluctuating swelling in this situation of slow enlargement, and unaccompanied by any definite pain, can hardly be anything else but an effusion into the semi-membranosus bursa. The treatment, Mr. Evans pointed out, may vary: sometimes aspiration of the contents is quite sufficient, but usually the swelling recurs. It is not essential that the whole bursa should be dissected out, though if this be done it is clear that no recurrence can take place. It is usually sufficient to cut away a large portion of the sac wall so as to lay the interior of the bursa open to the lymphatic spaces of the part; then if any excessive effusion should take place it will be rapidly carried off by the surrounding lymphatics. In all operations on this bursa, and also on most other bursæ in the neighbourhood of the knee-joint, it must always be borne in mind that it is not rare for a communication to exist between the bursa and the knee-joint, and such a communication is especially commonly found in the case of the semi-membranosus bursa; therefore all precautions such as would be employed if the knee-joint itself were being opened should be taken to prevent any probability of sepsis. It might be asked what happens when this bursa has been removed: does the friction occur which it was designed to prevent? The answer is that another bursa develops; in fact, it may be said that wherever friction is present a bursa can develop in loose connective tissue; these adventitious bursæ arise by the multiplication of the connective tissue corpuscles, which then arrange themselves so as to form a parietal layer of the mesoblastic epithelium. The bursæ so formed also communicate freely with the neighbouring lymphatic spaces, for the lining is hardly ever complete. The cysts, which were first described by Morant Baker, are probably developed by the persistence of the embryonic processes for the articular synovial membrane or from one of the neighbouring bursæ, and when situated near joints, they may closely simulate enlarged bursæ.

The wound healed by first intention, and the patient was able to leave the hospital ten days after operation.

TRANSACTIONS OF SOCIETIES.

MEDICAL SOCIETY OF LONDON.

Meeting held Monday, November 23rd, 1914.

The President, Sir John Bland-Sutton, in the Chair.

ADJOURNED DISCUSSION ON

SURGICAL EXPERIENCES IN THE PRESENT WAR.

[Specially Reported for this Journal.]

Mr. D'Arcy Power said the wounds which came under his observation at No. 1 General Hospital, the hospital for officers at Fishmongers' Hall, and at the Victoria Hospital, Chelsea, had been caused by shrapnel casing, shrapnel bullets—of which there were at least two varieties—conical bullets, and large shell. He had not had cases of lance, bayonet, sword, or sabre wounds. He exhibited two sovereigns which were driven into the thickest part of the erector spinæ of an officer, who was wearing a money belt. One coin bore the impress of the other, even to the milled edge; both coins were crumpled up and were concave. Though driven in together, they lay widely apart in the muscle. One of the coins had comminuted the transverse process of the fourth or fifth lumbar vertebra, and had torn away part of the crest of the ilium. There had been a number of instances of concussion of the cord and of peripheral nerves. Though a group of nerves had been paralysed, exploration failed to reveal any gross lesion. Usually he was content to follow the track of a bullet rather than to attempt to cut down directly upon it. The track was often a devious one, and seemed to depend more upon the position of the patient and the tension of the tissues than upon the physical properties of the latter. He had been struck by the number of complete perforations in which only the points of entrance and exit had suppurated, the intervening track having healed before the patient reached the base hospital. In the few cases which had sinuses he did not hesitate to lay them freely open when that was possible. Even in large wounds it was better to lay open the pocket than to trust to gauze plugs and drainage tubes. This he combined with general irrigation. He did not use dry dressings, as they stuck to the wound. Biniodide of mercury, corrosive sublimate, Sanitas, and boracic fomentations had been largely used, but not carbolic acid. In the case of sloughing wounds he had not hesitated to amputate. Before operating for sloughing wounds, it had been their custom to have a bacteriological examination made of the secretion, particularly in order to determine whether the tetanus bacillus was present. If so, a prophylactic dose of antitetanic serum was given on the day preceding the operation. He preferred lumbar puncture to subcutaneous injection. His view was that surgeons were at present inclined to be too meddlesome in chest cases. By the time these patients arrived at the base hospital the pleura was filled with a blood-stained serous effusion, there was a high temperature, difficulty of breathing, and the man looked ill. Aspiration gave relief, but the pleural cavity quickly refilled. A piece of rib was then excised, and in place of the serous effusion pus soon poured out. He would be willing for these chest cases to be under the care of the physician, the surgeon only being called in if the physician thought it desirable. If wounds became painful after having once healed, they should be explored. In each of these cases he had seen, the surgeon had been rewarded by finding a foreign body.

Mr. Charters Symonds wished to express his agreement with Sir Watson Cheyne's condemnation of the use of the gauze drain when suppuration existed. He thought much was to be gained by this discussion, because all surgeons did not treat these injuries in the same way. He would speak chiefly of the management of septic comminuted fractures and wounds of joints, for in those cases life and limb were in peril, and the surgeon's purpose should be concentrated, in the first place, upon saving both, leaving the refinements to a later period. The cases he had seen had arrived after an interval of two to ten days from the infliction of the injury. Even after 48 hours some wounds were so offensive as to be almost unbearable, and yet the general condition was, as a rule, very good, and when one or two parallel bones were broken the pain was very slight. The septic condition was not due to lack of dressing and attention on the way home; in fact, he wished to express his praise for the medical officers' and Red Cross nurses' efforts in this way. In the case of fractures with shell or bullets, he thought it was best to be content with a warm antiseptic application. In one case of bad comminuted fracture of the humerus, which came in six days after the injury, with a very offensive wound, with the skin suppurating and red, he made a simple incision for better drainage and introduced a rubber tube. And though he could feel with his finger small fragments, they were left. He was carefully dressed each day, and at the end of three weeks he had made a very good recovery. He went out on the fourth week with a soundly united bone, but with a small sinus. In another case a man had a bullet wound through his tibia, which was broken up badly, a large piece having been lifted from the anterior surface. Though a direct bullet wound, it was most offensive. Fomentations were applied, without any surgical interference, and he also, at the end of the third week, had got a very sound limb, but with a sinus which could probably be remedied by removing a piece of bone. He doubted whether some cases which had been operated upon for removal of bone and irrigated had done as well as if they had been left in the way he had just described. Stronger limbs were likely to result, though there might be imperfections in alignment. It was generally agreed that the better method of treating joint wounds was by the application of boric fomentations and gentle washing with peroxide of hydrogen, but there were many instances in which the question must arise whether more active measures should not be undertaken. He gave two examples of that. Sometimes the effort to save a limb was unavailing, as in the following instance. An officer arrived on the tenth day after receiving severe shell wounds. He came with his left arm amputated, and his foot and ankle septic. There was also a dirty, ragged and offensive wound in the popliteal space, some portions of bullet having entered from the inner side. In such a case, with the wound deep and ten days old, should immediate amputation have been performed through the thigh? As his temperature was 103°, his popliteal space was opened up at once and the condition ascertained. He improved for some days, and the temperature fell. But on the seventh day after admission it rose again to 103°, and the ankle-joint was opened and pus evacuated. Three days later there was slight hæmorrhage from the popliteal space. As this was repeated on the following day, he opened the popliteal space, and on passing his finger in to ascertain whether a foreign body was present, there was such a rush of blood that he realised the popliteal artery was broken up. A small fragment of the nickel casing of a bullet was found lying on the far side of the artery. It had wounded both artery and vein. He tied the artery and vein, as he wished to give the man a chance of retaining his limb, ligaturing the artery in the apex of Scarpa's triangle. But next day the foot was discoloured and the leg septic, and he was compelled to amputate below the ligature. The temperature had been normal for several days. He thought it likely that if amputation had been done earlier, when the patient was very ill, it might have proved fatal; whereas the temporising had doubtless brought the man into a condition in which he could stand the operation. When a wound was septic, it was better to examine and drain, and, if the artery was damaged, to ligature some distance above. In cases of compound fracture which he had treated at Guy's, he made it a practice to apply a plate, which served to keep the parts in good apposition and to retain the fragments while callus formed, and enabled more satisfactory dressings to be applied. To open a clean bullet wound, unless to secure a bleeding point, he regarded as unjustifiable. He thought Sir Watson Cheyne had done good service by bringing the profession back to carbolic acid; and it was good to hear that Lister's great exponent had not lost faith in the antiseptic with which Lister's greatest triumphs were secured. For suppurating joints and compound fractures he (the speaker) relied on carbolic acid and perchloride of mercury; 2 per cent solutions of iodine in rectified spirit had also yielded remarkable results in the case of lacerated wounds. He would like to know the merits of the components of the various antiseptics employed. He believed it would be found that alcohol played an important part in the beneficial results secured. Wine and oil were used for binding up wounds by the Good Samaritan, who might therefore be considered the first antiseptic surgeon of whom we had any record.

Mr. R. P. ROWLANDS also emphasised the dirty conditions under which the soldiers had to fight and the unavoidable delay in treatment which ensued, the latter being, in his view, the crux of the whole matter, so that it was almost impossible to apply the sound advice which Sir Watson Cheyne gave at the opening of the debate. Their *confrères* in France were doing most devoted and even heroic work. Most of the shell or shrapnel wounds were, necessarily, laden with bacteria from the skin and clothes, and, particularly in northern France and Belgium, from the soil. Many of the medical men at the front were young men who had been well trained in the principles of surgery, and to them the introduction of antiseptics into wounds was abhorrent, and they thought such a measure would cause pain and sloughing. But dirty wounds required treatment very different from that of ordinary open wounds. The cleansing of wounds should be done as quickly as possible, owing to the great rate at which bacteria multiply; and his view was that this was best carried out by a combination of mechanical and chemical measures. But strong antiseptics were harmful after 24 to 36 hours from the receipt of the injury. He had often used liquid carbolic acid with great advantage for earth-soiled wounds. But the routine use of it in these large operations of troops might create an economic difficulty, and he suggested the appointment of a committee, consisting or surgeons, bacteriologists and chemists, to discuss the varieties and strengths to be used of suitable anæsthetics. His colleague, Mr. Philip Turner, had discovered that a 1 per cent. solution of picric acid in methylated spirit was more efficient than the ordinary iodine solution, and about one-tenth the cost. Among the cases he had seen was one with the tibia in six pieces; and to save the limb from amputation he plated the whole length of the tibia with two plates. But the cleansing of the lacerated muscles by iodine was not satisfactory. When wounds were already septic, drainage, irrigation, baths, and fomentations were the chief indications. Radical operations for the repair of nerves, tendons, bones, etc., must be deferred until sepsis had subsided. The best hope of general improvement centred in getting the cases earlier to the base or field hospitals by means of special motor ambulances. There was at present much congestion in the field hospitals. Bad cases should be moved as little as possible. The R.A.M.C. service in this war had been brought to such a state of efficiency that it was unequalled by that of any other armies. Much, however, yet remained to be done for the greater comfort and better treatment of the wounded, and everything should be provided for the latter without the aid of any outside society.

Dr. IRONSIDE BRUCE showed a very instructive collection of skiagrams illustrative of various types of wounds inflicted in the present conflict, and then proceeded to discuss the question of localisation of foreign bodies by X-rays. In operating by the aid of such means there were practical difficulties. The mere statement that a foreign body was a certain distance below the skin conveyed no useful information, because the thickness of skin and muscle differed so greatly in various people. The X-ray tube was arranged in such a way that the foreign body was immediately beneath it, and for successful removal by this guide it was necessary that operation should be done with the patient in precisely the same posture. Once the plane was altered, no further use could be made of the localisation.

Mr. W. H. H. JESSOP spoke of eye injuries received in the present war. Four cases—two Belgian and two British—were brought over absolutely blind, yet ophthalmoscopic examination showed nothing abnormal. Two had blepharospasm, for which nothing could be done; but in a few days this cleared up, and the blindness in all quite disappeared. All had been exposed to heavy shell fire, and he attributed the condition of these men to this. Iritis due to the gonococcus —not rheumatic—had also been seen in a few cases. In one case miner's nystagmus recurred in a man at the front who had been cured of it for a long time, an illustration of the need of inquiring into histories when passing candidates for the army.

Mr. JOCELYN SWAN spoke with an experience of over 2,000 cases since the beginning of September, and emphatically endorsed Sir Watson Cheyne's remark that these cases must receive antiseptic treatment and antiseptic treatment only, with the establishment of adequate drainage. Septic wounds would continue to be seen until the wounded men could be treated within a few hours of receiving the injury; some antiseptic treatment must be applied actually at the front. There was great difficulty in getting the wounded in, because the ambulances were so often under fire. He had received cases as early as three days after injury, and they were all septic. Bacteriological examination of many cases showed mostly a mixed infection: staphylococcus, streptococcus, and very frequently a coliform bacillus of the proteus group. Ten cases of tetanus had been under his personal care. He washed and sometimes scraped them, and applied pure carbolic or peroxide, and injected anti-tetanic serum into the lumbar spine. He had lost two of the ten cases; one was still under treatment, and seven had left for home. In the two cases he lost amputation had already been performed. He had had three cases of malignant œdema; the bacillus pyocyaneus was not uncommon. He, like Mr. Symonds, had been struck by the mildness of the constitutional symptoms in cases of bad fracture from the front. In the cases of severe injury of knee with much effusion of pus, he did not hesitate to open on both sides, and carry out frequent, or even continuous, irrigation. He had had 18 cases of skull injury, in which bullets had entered or passed through the brain. Two of them got well after relieving the depressed fractures at the point of entry. In some there was a very small scalp wound, but a large degree of fracture underlying it. One should always be on the look-out for skull cases, as they required to be dealt with immediately. In thoracic and abdominal cases he did not operate unless symptoms arose which demanded it. In five cases the bullets passed clean through the abdomen, and must necessarily have injured the intestines; yet in about three weeks they had quite recovered. In some instances bullets had passed through a viscus and lodged in the muscles of the back. He was much opposed to looking for bullets simply because X-rays showed them *in situ*. The great exception to this, however, was in wounds of the skull, which must be dealt with at once.

The PRESIDENT expressed the regret of the Society that Sir Watson Cheyne was unable to be present to sum up the discussion. That gentleman had shown his implicit faith in Lister's methods. Still, if surgeons simply followed in the paths made by their predecessors, those paths would become ruts, and there would be no advance. Acceptance of Lister's principles did not imply blindly following his methods; Lister himself was constantly trying to improve them. It was impossible to avoid using chemical antiseptics. Patients, nurses and surgeons could not be boiled. When a wound went wrong after operation, the surgeon had rarely to look beyond himself for the cause of the trouble. He had for many years used perchloride of mercury solution with success, but he preferred iodine. The initial sepsis in cases coming in from the war area he believed to be due to the conditions by which the soldiers were surrounded. Even in civil hospitals, with good surgeons, and keen house surgeons, sepsis was occasionally experienced; how much more likely was it therefore on the field of battle, where the ordinary quantity of micro-organisms was increased owing to many years of intensive cultivation of the soil. Fortunately, when the wounded soldiers had been put into good surroundings, under the judicious use of antiseptics and good nursing, the evil conditions were quickly abated, and healing wounds rewarded one's efforts.

The next meeting, on December 9th, will be devoted to the subject of "Tetanus in Our Soldiers."

ULSTER MEDICAL SOCIETY.

The second meeting of the Ulster Medical Society was held in the Medical Institute, College Square, N., on Thursday afternoon, November 26th, at 4.15. Dr. J. S. Morrow (President) occupied the chair, and there were upwards of fifty fellows and members of the Society present.

The Chairman referred in feeling terms to the loss which the Society had sustained by the death of Dr. John M'Ilroy.

The meeting took the form of a demonstration of cases showing chiefly diseases of the skin as follows:—

Dr. Wm. Calwell: (*a*) Man with peculiar form of sycosis; (*b*) man with tertiary syphilide about elbow; (*c*) man with tertiary syphilide on face; (*d*) woman with pruritic neurasthenia; (*e*) woman with early lupus erythematosus treated with carbon dioxide snow; (*f*) psoriasis of face in a girl; (*g*) acute generalised prurigo in a child; (*h*) scleroderma of arm in a girl, with distribution on skin supplied from 7th C. and 1st D. segments of the spinal cord; (*i*) favus in a boy; (*j*) photograph of a woman with pernicious anæmia, showing marked melano-leuco-derma; (*k*) photograph of a case of Fröhling's syndrome in a young woman; (*l*) photograph of a case of extensive molluscum contagiosum in a young girl.

Dr. M'Kisack: A case of acromegaly.

Mr. Mitchell: (*a*) A case of solid œdema of the face; (*b*) a case of ichthyosis; (*c*) specimen—excised gall-bladder with large number of gall-stones; (*d*) a case of skin graft of upper eyelid.

Mr. Kirk: Specimen from a case of ulcerative colitis treated by excision.

Mr. Fullerton: (*a*) A case of skin grafting of upper eyelid; (*b*) a case of club-foot treated by tarsectomy.

Dr. Houston: (*a*) A series of cases of acne, showing the results of treatment by vaccine; (*b*) some cases of eczema.

Dr. Rankin: (*a*) A series of cases of lupus vulgaris; (*b*) a series of cases of rodent ulcer, showing Lenthal Cheatle's distribution; (*c*) a case of lupus erythematosus.

Mr. Stevenson: A case of bone transplantation after removal of sarcoma of the femur.

Dr. T. Killen (Larne): (*a*) specimen of calcified hydrocele of tunica vaginalis testis; (*b*) specimen—meningocele successfully removed from a child aged three weeks; (*c*) a case of ichthyosis.

Dr. R. J. Johnstone: Specimen of a pseudo-myxoma of the peritoneum.

Sir Ronald Ross, K.C.B., F.R.S., will deliver the first of two lectures under the Chadwick Trust on "Government and Military Sanitation in the Tropics," on Friday next, December 4th, at 8.15 p.m., at the London School of Economics, Clare Market, Kingsway, W.C. Sir James Crichton-Browne, F.R.S., will preside.

Dr. G. B. Morgan, J.P., the Senior Surgeon of the Royal Infirmary, Sunderland, who has recently retired from that position, has been the recipient of a letter from the House Committee of the Institution, congratulating him upon having "spent well-nigh sixty years in unbroken and devoted service to the great house of suffering," and upon the attainment of his eightieth birthday.

Dr. William Forrest, M.B., C.M.Edin., of 13 Knowe Terrace, Pollokshields, Glasgow, left personal estate in the United Kingdom of the value of £31,384.

BELGIAN MEDICAL MEN
AND PHARMACISTS' RELIEF FUND.

Donations received at the offices of the Medical Press and Circular:—

	£	s.	d.
Dr. J. A. Shaw-Mackenzie	3	3	0
Dr. J. Rowlette	2	2	0
Dr. Chetham Strode	2	0	0
Dr. J. C. McWalter	2	0	0
A. A. Tindall, Esq.	1	1	0
Dr. David Walsh (English Editor "M. P. and C."	1	1	0
Henry Sewill, Esq.	1	1	0
Dr. W. Carters	1	1	0
Per Dr. H. Macnaughton-Jones:—			
Mrs. Whitney-Jones	10	10	0
Mr. and Mrs. Edgar Kingham ...	5	5	0
J. Wellesley Douglas, Esq.	5	5	0
"Thank Offering"	5	0	0
Mrs. Bischoffsheim	5	0	0
Henry Sword, Esq.	5	0	0
Miss L. McCheane	3	3	0
C. W.	2	2	0
Mr. and Mrs. C. Batty	2	2	0
Lady Doxford	2	2	0
W. Robinson, Esq.	1	1	0
Mrs. Cornwallis	1	1	0
Mrs. E. Guyon	1	1	0
J. C. Bagshaw, Esq.	1	1	0
Miss Beaton	1	1	0
Miss Hilleary	1	1	0
Mrs. W. J. Harvey	1	1	0
Michael McClosky, Esq.	1	1	0
Dr. Heywood Smith	1	1	0
Miss G. Allden	1	0	0
Mrs. W. E. Foster	1	0	0
Mrs. A. E. McCall	1	0	0
"Pandora"	1	0	0
Mrs. Thomson	0	10	6
Mrs. Stanley Lound	0	10	0
Mrs. W. V. Thompson	0	10	6
Mrs. Ensor	0	10	0
Poor Patient	0	5	0

Correction.

In our last issue it was stated in error that the funds raised for the Belgian Medical Relief Fund by the Committee appointed at the meeting in Dublin on the 20th ult. would be distributed through the Medical Press and Circular. The Committee appointed in Dublin has power to distribute the money in any way it thinks fit. We will gladly receive any contributions at our Irish Office, 29 Nassau Street, Dublin, and transmit them to this Committee.

SPECIAL REPORTS.

GENERAL MEDICAL COUNCIL.

HUNDREDTH SESSION.

FIRST DAY, TUESDAY, NOVEMBER 24TH, 1914.

The President, Sir Donald MacAlister, in the Chair.

The Acting Registrar having called the roll, the President announced that letters had been received from Sir Isambard Owen and Colonel David Hepburn, expressing regret for their inability to be present.

The Official notification of the appointment of Dr. Magennis as representative of the Apothecaries' Hall of Ireland for one year from August 1st, 1914, was read.

Dr. Magennis was introduced by Sir Lambert Ormsby.

The President delivered the following address:—

Gentlemen,—We begin to-day the hundredth session of the Council. In ordinary times the President might be tempted to improve the occasion by offering you his reflections on the Council's past history. But these are not ordinary times. New history is in the making, day by day, for the British Empire and for the world. The Council is called upon to take an active part in meeting the national emergencies that have arisen, and will arise, in connection with the civil and military Medical Services of the country. Its members and officers are preoccupied with the urgent duties of the present hour. They have neither leisure nor inclination to indulge in retrospect. I content myself therefore with the remark that the Council, during the fifty-six years of its existence, has steadily advanced in usefulness and influence. It has successfully endeavoured, within the narrow limits of its statutory powers, to improve medical education and discipline. It possesses to an increasing extent the confidence of the administrative and professional authorities of the nation. All over the Empire bodies of similar constitution and powers have by degrees been constituted, for the promotion in the several dominions of the same purposes; and the methods of these bodies follow closely the model which the Council has evolved, and which it has proved, in the course of its long experience, to be effective.

Before I pass to matters that must forthwith occupy our attention, I have once again to record with regret the loss of a valued colleague by death. The Right Hon. Sir Christopher Nixon, who was to the last earnestly interested in the Council and its work, passed away in July of this year. Dr. Adye-Curran, who had represented the Apothecaries' Hall of Ireland since 1905, completed his last term of service on August 1st. His place is taken by Dr. E. Magennis, Governor of the Hall, to whom on your behalf I have just now offered a welcome.

The war has deprived us of the able assistance at this Session of our General Registrar, Mr. N. C. King. He has long been an officer in the London Rifle Brigade, in which he now holds the rank of Major.

Mr. Cockington has been appointed Acting-Registrar in the meantime. Thanks to his devotion and that of his colleagues in the office, the current work has been carried out to the complete satisfaction of the President and Treasurers.

Two meetings of the Executive Committee have been held to deal with this and other emergencies created by the national situation. It is proper that I should make public reference to some of these.

The steps necessary for the official publication of the *British Pharmacopœia*, 1914, were entrusted to the Executive Committee at your last Session. The work was completed in July, and was ready for issue in October; under normal conditions it would have been duly published early in that month. After the outbreak of war, it was considered inopportune to order publication without giving longer notice than was originally deemed sufficient. It was accordingly arranged that for three months advance copies should be made freely accessible for reference by persons interested, and the date of publication was postponed to the last day of the year of issue. The postponement has given the Editors time to re-examine minutely the typography of these advance copies, and they have prepared a short list of corrections, to be made in the text as published.

The Executive Committee had also to consider whether the inspection and visitation of qualifying examinations, and of examinations for Diplomas in Public Health, which were provisionally arranged for the year 1915, should in the altered circumstances be proceeded with. It was known that some of the licensing bodies were about to hold special examinations, to meet the case of candidates who had completed the curriculum and were desirous of offering themselves without delay for military service. It was foreseen that, during the next year, occasion would arise for holding such examinations at other than the usual times. It was accordingly decided to represent to the Council the expediency of deferring the proposed inspection for the present, with a view to its resumption when normal arrangements are re-established.

Communications were received from several professional authorities enquiring as to the propriety of modifying or suspending some of the existing regulations in the case of students whose regular course of study for a medical qualification might be interrupted by reason of military service. The Executive Committee thought it right to intimate by means of a circular addressed to all the licensing bodies, the answer it gave in the name of the Council to the general question thus raised. In view of its importance to the public and to the profession, I think it well to repeat here the words of the answer:—

"With regard to the courses of study and examination prescribed for professional qualifications, it is the statutory duty of the General Medical Council to secure the maintenance of such a standard of proficiency as shall sufficiently guarantee the possession by candidates of the knowledge and skill requisite for the efficient practice of their profession.

"To this end the Council has formulated, for the guidance of the licensing bodies, a series of *Recommendations* respecting such courses. These *Recommendations* represent in general terms the *minimum* curriculum which, in the Council's opinion, should be required by the licensing bodies; and the Council notes with satisfaction that the *Regulations* of the several bodies give effect to them.

"Cases may arise in which, during the present national emergency, the bodies deem it expedient to modify or suspend the application of their *Regulations* to particular candidates; but the Council expects that all such cases shall be duly recorded and reported to the Council in the usual way.

"The Council feels sure that, in dealing with applications for modification or suspension of their *Regulations*, the bodies concerned will recognise the importance, in the public interest, of maintaining unimpaired the present standard of knowledge and skill required of all who seek to be admitted to the status and privileges of registered practitioners; and will accordingly agree with the Council that it is desirable to secure, in every instance, that the requirements of the *minimum* curriculum are substantially fulfilled."

We have reason to believe that this statement has commended itself to the authorities concerned, and to the profession at large. Multitudes of our medical brethren have nobly offered themselves for service with our troops at home and abroad. Many have already laid down their lives in the performance of that humane duty. The toll of war is not yet complete. We must face the certainty that ere long the ranks of our profession will be sadly depleted. Ample reserves are necessary to supply the places of those who fall on the field of honour. These reserves will be constituted by those whom we are now admitting to the status and privileges of registered practitioners. We shall best honour the memory of the fallen, and most surely safeguard the welfare of our forces and our people, if we do all in our power to secure that the men who enter the profession now are as fully and efficiently trained as their predecessors for the service they will soon be called to render. The need for efficient physicians and surgeons, in the field and at home, is not less urgent than the need for efficient soldiers and sailors. I have felt it my duty to press this consideration on senior students, who, though they have nearly completed their curriculum, are ready to forgo the prospect of early qualification and to enrol themselves straightway in the combatant forces.

It is currently reported that, owing to the war, the number of students, of all years, enrolled for the present *annus medicus* is much below the average. If this be true, the risk of a serious shortage in the future supply of qualified practitioners would appear to be imminent. The data in the possession of the Council do not enable me to furnish an answer to the enquiries that have reached me from various public authorities interested in the subject. I have therefore thought it desirable to procure, so far as I could do so on my own responsibility, materials for a trustworthy estimate of the aggregate numbers likely to be ready for qualification in the next two or three years. The statistics, if I succeed in obtaining them, may prove of value from more than one point of view.

An inevitable dislocation of civil practice, both under the National Insurance Act and in general, arose in August and September from the mobilisation of practitioners, attached as surgeons to military hospitals and to Territorial and other Service units, We have gratifying evidence that, throughout the country, the fraternal spirit shown by their colleagues did much to diminish the resulting difficulties experienced by such practitioners in providing for the care of their patients. In most localities a temporary working arrangement has been made, by which the needs of the civil community will be met for the present. Plans have moreover been devised, in consultation with the National Insurance and the Military Authorities, which may, it is hoped, have the effect of removing certain defects in existing arrangements that actual experience has made manifest. The Executive Committee has had submitted to it various proposals bearing on these subjects, and so far as they lay within its province has offered advice upon them.

The magnificent rally of the Overseas Dominions to the defence of the Empire has cheered but not surprised us at home. Their troops, fully equipped for service in Europe, are accompanied by a number of able and efficient surgeons. In virtue of the reciprocal relations which the Council has succeeded in establishing throughout the greater part of the Empire, the majority of these surgeons are qualified for immediate registration at home, and are thus eligible for commissions in the Army Medical Service. Unfortunately some of the Provinces of Canada have so far omitted to entertain the overtures for reciprocity which this country has made to them. The result is that certain of the surgeons, fully qualified under the provincial law, find themselves debarred from acquiring what may be described as an Imperial status in the British *Register*. The remedy lies with the Provincial Authorities. I am not without hope that the representations which have been addressed to these authorities, in the interest of the Imperial services, will induce them to consider afresh the question of reciprocity. The war has made it clear that account must now be taken of its Imperial as well as its local aspects.

In India the legislation for the regulation of medical practice, of which I spoke last May, has now been extended to Madras. Communications from other parts of India, bearing on the same subject, have been under the consideration of the Executive Committee, and have been promptly dealt with. Negotiations with the India Office, and the Government of India, which were entered into at the instance of the Examination-Committee, in relation to Indian students of medicine and to members of the Subordinate Medical Services, are still proceeding.

The necessary preoccupation of Parliament with measures of emergency has prevented progress with the Midwives (Scotland) Bill, and with the Bill introduced on behalf of the Privy Council Office for improving the procedure in elections of direct representatives to the Medical Council. The Highlands and Islands (Medical Service) Board, which includes three members of the Council, has been endeavouring to carry forward its statutory work under the difficulties incident to the present situation. It has formed regulations for the Service, which are to be submitted for approval to the Treasury and the Secretary for Scotland. The draft was courteously communicated to the Executive Committee, and after examination was found to contain no proposals to which the Council could object. We have learned that the National Insurance Commissioners have taken up the question of sickness and disability certification, with a view to such modifications of the existing practice as will remove the professional objections urged against it by the Insurance Act Committee on your behalf. In this connection it is satisfactory to observe that the action taken by the Council to impress on practitioners their special responsibility in relation to certificates, and to methods of procuring patients, has had a wholesome effect. The complaints of laxity in these respects, which were not infrequent at the beginning of the year, have now practically ceased.

On August 4th, when war was declared, the House of Commons ordered to be printed the Report of the Select Committee on Patent Medicines. The findings and recommendations of the Committee deserve the Council's most careful attention. They testify in vigorous terms to the existence of a "grave and widespread public evil," and of an "intolerable state of things," for which new legislation, "rather than merely the amendment of existing laws, is urgently needed in the public interest." The Council, at the instance of its Unqualified Practice Committee, to which this Report has been referred, has more than once expressed similar conclusions; but hitherto without practical result so far as the Legislature is concerned. It is earnestly to be desired that, even in days like these, when the conservation of the public safety is the paramount objective of the Government, some earnest thought should also be given to the conservation of the public health, which is preyed upon by insidious and unscrupulous mercenaries.

The Report of a Departmental Committee of the Board of Education, appointed to consider the "practice of the Board with regard to the acceptance of certificates from unregistered practitioners in dentistry," which was issued in July, may be taken as an indication that the State Authorities recognise some at least of the dangers of *laisser faire* in the matter of unqualified practice. After stating that, "whatever may have been the intentions of Parliament in passing the Dentists Act of 1878, the position now is that no person may describe himself as a dentist or have his name inscribed in the *Dentists' Register* who has not obtained the qualifications required by the body entrusted by the State with the charge of the *Register*," the Departmental Committee adds: "It would very ill become the Board of Education to adopt a lower standard of general or special education than the minimum prescribed by the State." And the Committee's unanimous recommendation is to the effect—that the Board should not agree to the request that the certificates of unregistered practitioners "should be accepted equally with those of registered dentists."

The recent changes in the regulations for death-certification, issued by authority of the Registrar-General, mark a similar advance in the official position. We have reason to regret that progress is still so slow. But we have reason also to persevere in our efforts to accelerate it. *E pur se muove.*

Moved by Dr. Little, seconded by Dr. Norman Moore, and carried by acclamation: "That the President be thanked for his Address, and requested to let it be printed in the *Minutes*, and that the Council express its gratification at the President's recovery from his recent severe illness."

Moved by the Chairman of the Business-Committee, seconded by Sir Henry Morris, and agreed to: "That the Council do adjourn at 4 p.m. to-day, to enable certain Committees to meet for the completion of their Reports."

The Council proceeded to the election of a member of the Irish Branch Council as a member of the Penal Cases Committee in the place of the late Rt. Hon. Sir Christopher Nixon, Bart., Sir Lambert Ormsby and Dr. Magennis acting as scrutineers.

The President subsequently announced that Dr. Little had been elected a member of the Penal Cases Committee.

Moved by the Chairman of the Business Committee seconded by Sir Henry Morris, and agreed to:—

"That the following report by the Executive Committee made in pursuance of Standing Order XIII., 11, as revised by the General Council on June 1st, 1914 (*Minutes*, 1914, p. 53), be received and entered in the *Minutes*":—

At its meeting on July 13th, 1914, the Executive Committee considered a request, transmitted by the Scottish Branch Registrar, from Robert Ramsey, registered as of 2, Sandyford Place, Glasgow, W., M.B., Ch.B. 1901, U.Glasg., F.R.C.S.Edin. 1904, F.F.P.S.Glasg. 1905, for the removal of his name from the *Medical Register* on the ground of his having ceased to practise.

A Statutory Declaration in accordance with the Standing Orders had been supplied, and the bodies concerned stated that they had no objection to the removal of the name from the *Register.*

The Committee resolved :—" That this request be reported to the Council, with a recommendation that it be acceded to."

On motion from the Chair it was agreed :—" That the recommendation of the Executive Committee be adopted."

Moved by the Chairman of the Business Committee seconded by Sir John Moore and agreed to :—

" That the following report from the Executive Committee be received and entered in the *Minutes* :—

At its meeting on July 13th, 1914, the Executive Committee considered business arising out of the following resolution adopted by the General Council on June 1st, 1914 :—

" That it be delegated to the Executive Committee to make all necessary arrangements for the Inspection and Visitation of Qualifying Examinations directed to begin in 1915, and to nominate to the Council, at its November Session, suitable persons for appointment as Inspectors."

According to the Standing Orders three Inspectors—one for Medicine, one for Surgery, and one for Midwifery—must be appointed for definite periods. The remuneration is fixed at five guineas for each day during which the Inspector is absent from home on the business of the Council, together with an allowance for his actual travelling and hotel expenses.

The Committee authorised the Registrar to obtain from the licensing bodies the dates of their qualifying examinations to be held during the year 1915 and to take other preliminary steps.

The Committee on the same day also considered business arising out of the following resolution adopted by the General Council on June 1, 1914 :—

" That it is advisable that all examinations conducted for the purpose of conferring the several registrable Degrees, Diplomas, or Certificates in Sanitary Science, Public Health, or State Medicine, specified in Table G. at page lxxv. of the *Medical Register*, should be inspected, and that it be remitted to the Executive Committee to consider and report upon the necessary arrangements for the inspection."

The Committee resolved to recommend :—

(*a*) That an inspection of all the examinations for diplomas in public health should be commenced in 1915. Those bodies whose examinations in public health have been instituted since the last inspection should be first inspected.

(*b*) That one inspector should be appointed for all the examinations, and should be remunerated on the same scale as the inspectors of the final examinations. Where practicable a member of the Council should accompany the inspector as visitor.

The further consideration of the appointment of an inspector was postponed till the next meeting of the Committee.

At a later meeting held on September 15th, 1914, subsequent to the outbreak of the war, the Committee considered what further action, if any, should be taken in regard to the visitation and inspection of qualifying examinations, and of examinations for diplomas in public health, respectively, during the year 1915, whereupon it was resolved : " That the resolutions of July 13th, 1914, be rescinded, and that the Executive Committee report to the Council that in view of the present unusual conditions it is inexpedient to proceed with the proposed inspection and visitation of qualifying examinations and of examinations for diplomas in public health during the year 1915."

On motion from the Chair it was agreed : " That the proposal of the Executive Committee be approved."

Strangers then withdrew and the Council deliberated *in camerâ.*

Strangers having been readmitted, the President announced that the Acting-Registrar had been directed to restore to the *Medical Register* the name of Mr. Walter Randall Knightley.

Moved by the Chairman of the Business Committee, seconded by Sir Henry Morris, and agreed to :—

" That the following report from the Executive Committee made pursuant to Standing Order VII., 19, in regard to an application from the University of Allahabad, be received and entered in the *Minutes* :

The Executive Committee reports that Part II. of the Medical Act (1886) having been extended by an Order in Council to the Empire of India (see *Minutes*, 1892, p. 56), it has considered an application from the University of Allahabad for the recognition of its degrees of M.B., B.S., for registration in the Colonial List of the *Medical Register* of the United Kingdom; and has adopted the following resolution :—

" That any person who holds the degrees of M.B., B.S., of the University of Allahabad shall be entitled to be registered in the Colonial List of the *Medical Register*, provided he satisfies the Registrar of the General Medical Council regarding the other particulars set forth in Part II. of the Medical Act, 1886."

The Council, after deliberating *in camerâ*, subsequently adjourned.

(*To be continued.*)

CORRESPONDENCE.

FROM OUR SPECIAL CORRESPONDENTS AT HOME.

SCOTLAND.

Western Infirmary of Glasgow.

At the fortieth annual meeting of contributors, the Lord Provost (Chairman), referred to the facts as extremely gratifying that the working-men's subscriptions showed a further increase, notwithstanding the Insurance Act. No fewer than twenty of the medical staff are either at the front or attached to military hospitals at home, and 70 trained nurses in the institution are in similar positions. The Western Infirmary has not hitherto been used for wounded soldiers or sailors. It has nearly 900 civilian patients awaiting admission, and although the managers would be glad to do all in their power in the treatment of those wounded in the war, they have thought it their duty for the present to devote their attention to their ordinary work. The Lady Hozier Convalescent Home at Lanark, belonging to the Infirmary, has been offered, and is being used as a convalescent home for wounded soldiers. The medical and surgical staff of the Infirmary are doing their share of the military work. Colonel Mackintosh is Assistant Director of Medical Services for the Lowland Division of the Scottish command, and Miss Gregory Smith, the Matron, is Principal Matron of No. 3 Military Hospital, Stobhill.

Cancer in Ayr.

Some time ago it was suggested that there was a "cancer street" in Ayr. The Medical Officer of Health, Dr. W. F. Brown, reports that during last year there were 47 deaths from cancer in the burgh ; and, after transferring 7 to other authorities, the death-rate from cancer was 1.993 per 1,000. The rate for Ayr, he says, was not a low one. This was due to the fact that there was a higher proportion of persons over 40 years of age than in working-class communities. Cancer houses and areas had been stated to exist, but in his opinion there was no evidence that local causes had any influence on the cancer mortality. It was, however, a matter with which the Corporation proposed to deal more fully in the future. There could be no doubt that early diagnosis and treatment had a great deal to do with the prevention and cure of the disease, and several Corporations, notably Portsmouth, had taken the matter up and issued advisory pamphlets in which attention was drawn to the early symptoms and the need of these being seen to.

Victoria Cross for Captain Ranken.

The honour of the Victoria Cross has been posthumously conferred on the late Captain Harry Sherwood Ranken, R.A.M.C., for tending wounded in the trenches under rifle and shrapnel fire at Hautvesnes on September 19th, and for continuing on September 20th to attend to wounded after his thigh and leg had been shattered. Captain Ranken was a son of the Minister of Irvine.

Alleged Hospital Irregularity in Glasgow.

The father of a child who died in Belvidere Hospital in February last having made a written complaint regarding the treatment of the patient, the Health Committee, after investigation, resolved to recommend the Corporation to ask the Local Government Board to hold an inquiry into the general administration of the hospital, but further resolved to recommend that, pending the inquiry, the Physician-Superintendent should not be suspended from office. The Corporation have now adopted these recommendations.

LETTERS TO THE EDITOR.

[We do not hold ourselves responsible for the opinions expressed by our Correspondents.]

AMYLENE HYDRATE AS AN ANÆSTHETIC AND HYPNOTIC.

To the Editor of The Medical Press and Circular.

Sir,—The toxic properties of amylene hydrate are, I fear, not fully recognised, although it is many years since that greatest of Irish chemists, William Higgins, told of the physiological effects of the different members of its series on the respiratory, vascular, and nervous systems.

Our knowledge of amylene hydrate dates from 1780, when Karl Scheele commenced his investigations into the nature of fusel oil. To this substance M. Auguste Cahours gave the name amylic alcohol, because it was obtained from bodies containing starch. From amylic alcohol, Mr. Balard, Professor of Chemistry to the Faculty of Sciences of Paris, produced amylene by distilling it with chloride of zinc. Pasteur, in 1885, pointed out that the rotary powers of different samples of amylic alcohol vary according to the source from which they are obtained. The production obtained by the action of the chloride of zinc was considered to be pure amylene (C_5H_{10}), formed simply by the removal of the elements of water from the alcohol; whereas it contained at least three distinct hydrocarbons—amylene, paramylene, and metamylene; from which the amylene is separated by fractional distillations. In 1894, H. Meyer produced a pure amylene hydrate, which he named pental; and in association with his friend and colleague, E. Harnach, he recommended it for internal use as a hypnotic in functional insomnia. After a series of 53 experiments on lower animals, Dr. John Snow first administered amylene, as an anæsthetic, in King's College Hospital, on the 10th of November, 1856, to two boys 14 years old. "The effects were so favourable as to encourage a further trial, which was made in the same institution on December 4th. He administered the anæsthetic 238 times, and on January 10th, 1857, read a paper on its value in surgical operations (*Med. Times and Gazette*, 1857); and on April 7th following he lost his first patient from amylene, a "patient thirty-three years of age, who was in good health, except for a fistula in ano." Another death from amylene occurred on July 30th, 1857, during the removal of a small tumour from the back. Those deaths so alarmed the Academy of Medicine of Paris that they recommended the disuse of the chemical. In using products of the primary alcoholic series, it is well to remember that, as Dujardin-Beaumetz pointed out, the toxic action of all the fermentation alcohols increases with their molecular weight. Wm. Higgins noted the analgesic and anæsthetic properties of the ethyl group. Drs. Francis and Fortescue-Brickdale show that the intensity of the actions of the alcohols depend on the number of carbon atoms present. They found that it took 12 grammes of $C_2H.OH$ to produce sleep in a rabbit; of CH_3, CHOH. C_2H_5, 2 gm. produced drowsiness; and of C_2H_3, C_2H_5, COH, 2 grammes produced 8 to 9 hours' sleep. Harnach and Meyer found that the chemical first stimulates the respiration and nervous system, but afterwards paralyses them. It depresses the heart and causes a continuous fall in blood pressure. If the dose be sufficiently large, the heart's action becomes irregular, and cardiac paralysis eventually occurs. Lethal doses are followed by deep sleep or stupor, slow, irregular respiration, and slow pulse, a great fall of temperature with loss of reflex action, and finally death. This description is fully borne out by Dr. John Snow's graphic picture of his fatal cases. The case of poisoning reported by Herr Anker and that of M. Lederer exhibited quite different symptoms; but it is quite possible that the drug used in the earlier cases was a mixed product of the still, and not pure pental.

I am, Sir, yours truly,
George Foy.

Dublin.
November 20th, 1914.

THE OPHTHALMOSCOPE IN GENERAL AND MEDICAL PRACTICE.

To the Editor of The Medical Press and Circular.

Sir,—I read with interest in your issue of November 11th Dr. Hawthorne's paper on "The Ophthalmoscope in General and Medical Practice." It seems to me his conclusions on the subject are sound. It is consistent with the highest traditions of the profession that the physician on the one hand and the surgeon on the other should, from time to time, point out to the general practitioner what additional or substituted means of diagnosis the latter might adopt in the routine investigation of cases, regardless on their part of any professional disadvantage to them which might follow upon the general practitioner adopting their suggestions. It is abandoning, to a certain extent, a trench in the fight against disease, not to the enemy, but to an ally: leaving to the physician and the surgeon time to occupy fresh strategic points in the battle. The application of electricity to the ophthalmoscope having made its instantaneous use perfectly simple, it seems to me that Dr. Hawthorne is right in pressing the instrument upon the attention of the family doctor. There is no reason to suppose that the patient, accustomed hitherto to an examination by stethoscope, will find the application of the ophthalmoscope, though novel, to give him any alarm or discomfort whatever.

I am, Sir, yours truly.
November 25th, 1914. Reflector.

ALCOHOL AND THE WAR.

To the Editor of The Medical Press and Circular.

Sir,—In his interesting letter, Dr. Thomas Dutton surely mixes up two distinct issues. I do not want to revive the old controversy anent "the moderate drinker," but as it is notorious that the vast majority of our soldiers if tempted to drink are in great danger of becoming immoderate in their use of alcohol, it seems surely better to inculcate total abstinence; especially since it is demonstrated that alcohol is not a food of any value, nor necessary for the preservation of vigour. The other issue—the value of alcohol in treatment of the wounded soldier—is quite different. But it would certainly require a vast number of experiments carried out in the strictest scientific fashion to prove that in small doses alcohol does "set up phagocytic action and prevents sepsis in the wounded." Applied externally, alcohol is, of course, an antiseptic, and, diluted in the form of wine, was used in the dressing of wounds in ancient days. In such a form it might still be useful in the lack of a modern antiseptic. But it goes beyond my imagination that a minute quantity passing through the circulation could produce the antiseptic effects Dr. Dutton believes in. There is very little use for alcohol in medicine or surgery. It may be good to cause reaction in some few cases of shock, but in a vast number of such cases hot milk or hot soup can produce a like effect without the injurious depression that always follows alcohol.

I am, Sir, yours truly.
November 20th, 1914. Therapeutist.

THE STUDENT'S TRAINING.

To the Editor of The Medical Press and Circular.

Sir,—Your correspondent, "Tom A. Hawke, M.D.," rains blows upon me such as we expect from the instrument constituting his *nom de plume* and from those who use that instrument; but his attacks are ill-directed as regards the subject at issue. I will confine myself to civilised discussion.

I have not advocated narrowness of culture on the part of the medical man, but I maintain that his school education, his study for the Medical Preliminary, and such subsequent reading as may appeal to his individual taste, render it unnecessary to cumber the medical curriculum with studies in physics, chemistry and zoology having no direct bearing on his professional work. I am for having less time taken up by these subjects.

"Tom A. Hawke, M.D." says it is true that we forget a great deal of what we have learnt, and he explains that we must not absorb knowledge, but assimilate it. Will he carry his argument a little further and explain his explanation? Can knowledge be assimilated without being absorbed? It would be interesting to know how. And can it be assimilated and still be forgotten?

I am, Sir, yours truly,
Observer.

Glasgow,
November 25th, 1914.

COAGULEN *VERSUS* COAGULOSE.

To the Editor of The Medical Press and Circular.

Dear Sir,—We observe that in some newspapers a statement appears regarding what is called a recent medical discovery by Professor Kocher, of Berne, who has introduced a substance called "Coagulen," which coagulates the blood and instantly stops bleeding when applied to a wound internally or externally.

May we mention that the coagulating principle, or fibrin ferment, of the blood was isolated some years ago by a British scientist, Dr. G. H. A. Clowes, with whom was associated Dr. F. C. Busch, these two gentlemen working in the New York State Medical Research Laboratory, Buffalo. The preparation received the name of "Coagulose," and it has been on the British market for more than a year. Immediately after war was declared, Dr. Clowes, who happened to be in this country at the time, interviewed a number of medical men connected with the War Office, and he donated to the War Office a supply of coagulose, so that it might be employed in the hospitals where the wounded soldiers are being treated. We have reason to know that it is being used in some of these hospitals and that it is producing excellent results.

While this does not in the least detract from the merit of Kocher's discovery, common fairness warrants us in asking you to make it quite clear that the announcement of this discovery was anticipated by at least three years by an English scientist working in America.

We are, Sir, yours truly,
Parke, Davis and Co.

November 28th, 1914.

OBITUARY.

DR. SKOTTOWE, HELENSBURGH.

On the 16th ult. there died at Mohammerah, Persian Gulf, Dr. A. J. F. Skottowe, Medical Officer there of the Anglo-Persian Oil Company. He was about 48 years of age, and qualified at Glasgow University in 1883, becoming M.D. in 1886. Dr. Skottowe was for 15 years Medical Officer of Health for Helensburgh, and brought about reforms at the hospital and in the sanitary condition of the town which put the burgh in the very front rank of health resorts. He resigned his position at Helensburgh about three years ago to take up the post at which he died. Dr. Skottowe was a second cousin of Lord Roberts, who on more than one occasion visited Dr. Skottowe's mother at Helensburgh. He leaves a widow, a son and a daughter.

DR. EUSTACE SMITH.

We regret to announce the death of Dr. Eustace Smith, the well-known authority on diseases of children, which has taken place in his 80th year. The deceased, who became M.D.Lond. in 1865, and F.R.C.P.Lond. in 1874, received his medical education at University College, London, and Paris. He was one of the founders of the East London Hospital for Children, of which institution he was Consulting Physician at the time of his death. He was also Consulting Physician to the City of London Hospital for Diseases of the Chest. Dr. Eustace Smith was physician to the late King of the Belgians, by whom he was created a Chevalier of the Order of Leopold. His best-known work was that on the "Wasting Diseases of Infants and Children," which reached six editions, and his "Practical Treatise on Disease in Children," which attained three editions, was marked by sound clinical acumen. He was also the author of numerous articles and papers upon subjects connected with his speciality.

MEDICAL NEWS IN BRIEF.

The Metropolitan Asylums Board.

It is announced that a sub-committee of the Metropolitan Asylums Board have approved and forwarded to the Local Government Board sketch plans prepared by the architect, Mr. E. T. Hall, for the erection of sanatoria (1) for 232 women at Hyde Style, near Godalming, at an estimated cost of £42,138; (2) for 168 men at Felbridge, near East Grinstead, at an estimated cost of £29,900; (3) for 175 men at Ellisfield, near Basingstoke, at an estimated cost of £30,973. In the case of the proposed sanatorium at Godalming the Local Government Board has already given its general consent to the plans. The plans for the sanatoria at East Grinstead and Basingstoke are still under consideration.

Royal Naval Medical Service.

The following have been appointed temporary Surgeons by the Admiralty:—E. R. Bailey, to the *Vernon,* additional, vice Watson, and A. R. MacMullin, to the *Pembroke III.*, additional, for R.N. Air Service, both to date November 27th; T. H. Creswell and C. W. Wheeler-Bennett, both to Hospital Ship *Garth Castle,* to date December 3rd; T. S. Harrison, to the *Victory,* additional, for Portland Hospital, vice Briscoe, undated; A. F. Barrett, G .F. Jones, C. H. Browne, and G. W. King, to the *Pembroke,* additional, for Chatham Hospital; and C. S. Archer, to the *Victory,* additional, for Haslar Hospital, all to date November 27th.

Army Medical Service.

R.A.M.C.—Following Lieutenants resign their temporary commissions: R. D. M. Macpherson, M.B., J. B. Moore, M.D. (November 28th). The following to be temporary Quartermasters, with hon. rank of Lieutenants: F. W. Nelson, G. Rose (November 13th); F. J. Bollen, F. J. Taylor (November 16th). The following have been granted temporary rank as follows, while serving with Allied Forces Base Hospital: To be Majors, A. G. Whitehorne-Cole, B. Hudson, M.D., P. M. Heath, F.R.C.S.; to be Captains, N. Duggan, M.B., F.R.C.S., S. B. Radley, M.B., F.R.C.S., E. D. Roberts; to be Lieutenants, D. E. Derry, M.B., O. T. Dinnick, M.B., W. M. S. Robinson, F.R.C.S.Edin., R. H. Liscombe; to be temporary Quartermaster, with hon. rank of Lieutenant, L. H. Lebus. To be temporary Lieutenants: S. E. Picken, M.B. (October 9th); R. S. Taggart, M.B. (October 13th); J. G. Johnston, M.B. (October 21st); J. H. O'Neill (October 22nd); A. R. Hamilton, M.B. (October 24th); H. Emerson, M.B. (October 26th); E. F. W. Buckell (November 9th); R. O. H. Jones (November 10th); R. L. Barwick, J. I. Russell, M.B., H. T. Mant, M.B., F.R.C.S. (November 1st); G. E. Miles (November 12th); J. B. Mitton, M.B.,

J. P. O'Flynn, M.B. (November 13th); W. Elwood, M.B., K. J. Yeo, A. N. Hooper, W. H. Kiep, M.B., F. Carson, M.B., A. J. Kendrew, M.B. (November 14th).

MEDICAL WAR ITEMS.

The King at the Front.

THE visit of H.M. the King to the General Headquarters of the Expeditionary Force in France will give unbounded satisfaction to the British people, and the presence of His Majesty among his troops at the front will be universally felt to be a source of inspiration and encouragement.

The theatrical profession in England, whose generosity is proverbial, have undertaken to equip a ward of twenty beds in the new Red Cross Hospital at Stamford Street, Waterloo.

The following account of his experiences as a lieutenant in a field-ambulance of the Royal Army Medical Corps is contributed to the *Times:*—

"Before the advent of the motor ambulance the whole duty of conveying wounded from the battlefield to the clearing hospital (in practice this meant railhead) fell to the field ambulances. The latter possess horse ambulance wagons—among other vehicles—which are pushed forward during an engagement as near to the firing line as is consistent with moderate safety, and the wounded are placed in them from the 'regimental aidposts' behind the firing line. In the course of the protracted semi-siege-like battles which are characteristic of this war, it is usually only under cover of darkness that it is possible for the wagons to approach the aidposts, and the collection of wounded is accordingly begun (by the wagons) at dusk. Having collected the wounded, the wagons are driven to the headquarters of the field ambulance, which may be two, three or four miles in the rear; and here the patients are fed on hot beef tea, soup, tea, milk, or other sustaining food. Their wounds are also redressed if necessary, and operations of urgency can be undertaken.

"In some cases it may happen, as at the battle of the Aisne, that the headquarters of the field ambulances are so near to railhead that the wounded can be transferred straight to ambulance trains or to clearing hospitals in which they can await the arrival of such trains. But as a rule this is not the case; there is nearly always a gap of some miles separating the headquarters of the field ambulances and the nearest available point reached by ambulance trains. It is this gap which the motor ambulances are employed to bridge, and most excellently they do it. Before they appeared, all sorts of shifts were necessary. It must be understood that whenever the troops advance (or retire) the field ambulances are required to advance (or retire) with them. It is essential, therefore, that the field ambulances should retain their cases for as short a time as possible, for it is obvious that they cannot move with the troops if they are encumbered with hundreds (or even scores) of wounded patients. Thus the motor ambulances, working rapidly backwards and forwards between railhead and the field ambulances, achieve a double object; they ensure speedier and far more comfortable transit for the wounded to those places where their wounds can best be treated and healed; and they enable the field ambulances to retain their full mobility and so to serve most efficiently the needs of the troops among whom further casualties may occur.

"The motor ambulances run so speedily up and down that the field ambulances are never allowed to get choked up with cases, even after a big engagement. If the order comes to march before all the wounded have been taken away in the cars, all that is necessary is to send word to the latter that the cases are lying in a certain house or farm, and to leave one or two orderlies behind to look after them until the motor ambulance arrives. At the present time these vehicles work in fleets of five. Some of the fleets which visit the field ambulances are manned by Red Cross officers and men, English or American, some by the Royal Army Medical Corps. The cars in use present a variety of types and fittings. Lately a car resembling a small omnibus has made an appearance; it takes sitting cases only, and can accommodate ten or a dozen. Incidentally, every class, from the wealthy owner driving his own car to the ordinary chauffeur, turned soldier for the occasion, is represented on the driving seats of the motor ambulances. Those who have subscribed, or have been asked to subscribe, to the funds being raised for these cars may rest perfectly assured that their money is bringing a real boon to the fighting troops."

An officer in the R.A.M.C. describes his experiences at the front also in the *Times* as follows:—

"I will try to describe an entraining of wounded we had to carry out a few days ago. As a preliminary my train lay two miles outside the town of ——, as there was no vacant siding for us. The fighting front was almost parallel with the railway line, and about six or seven miles away, the surrounding country was flat, with a low ridge of hills in the distance. With the naked eye we could see a German captive balloon floating in the air, evidently acting as an observation post for their artillery fire. The roar of guns was continuous, and all along the ridge of hills we could see the smoke balls of bursting shrapnel. It was a beautifully clear, sunny afternoon, and we could see our aeroplanes passing along the position, often almost lost to sight by the smoke of the shrapnel fired at them by anti-aeroplane guns. At one time I saw eight aeroplanes at once, two of them chasing a Taube (I will never waste any money at Hendon again). I have a good pair of German Zeiss glasses, and it was realy thrilling to watch the aeroplanes working. We watched this till dusk, and then the train was moved forward into the railway station.

"Here it would require a Zola to describe the scene. Very little light, all the platforms crowded with refugees, shells falling with terrific noise in a distant part of the town. All the entrances and waiting rooms full of stretchers with wounded in them, and every available corner crowded with wounded that could walk. The air was quivering under the shock of heavy guns firing about half a mile from us, so much so that I had to have all the carriage windows opened to prevent the glass being broken. Well, the work of entraining the wounded began according to the definite system on which I have trained my *personnel.* My train is a quarter of a mile long, and consists of first and second-class *voitures* (corridor) communicating one with another. Each *voiture* is a ward, and the seats prepared as beds. The extreme value of organisation was never more proved or highly tested than it was that night. Halfway through our work shrapnel began to fall about 100 yards from the train, and this excited the unfortunate refugees, who were crowding into special trains as fast as they could. By 10 p.m. we had completely filled the train and evacuated nearly 400 cases, one-third of which were stretcher cases. Off we moved for our destination and began the work of washing, reclothing, dressing wounds, resetting fractures, and, last but not least, feeding our patients. Twelve hours later, by the time we had reached our base, every wound was dressed and a nominal roll of patients was ready, while every patient was suitably clothed and clean. Detraining took some six hours, and in another ten hours all suitable cases were in England, the lightly wounded and those unfit for ship having been sent to hospitals at the base. A fresh supply of stores had been obtained, food, medical comforts, and dressings, and we were on our way up to the front again. This is a very condensed description of what occurs to us every 36 hours. The evacuation and treatment of our sick and wounded is a phase of the war of which my corps will be very proud when the history comes to be written and which must very materially conduce to the success of field operations of the troops.

NOTICES TO CORRESPONDENTS, &c.

☞ CORRESPONDENTS requiring a reply in this column are particularly requested to make use of a *Distinctive Signature or Initial* and to avoid the practice of signing themselves "Reader" "Subscriber," "Old Subscriber," etc. Much confusion will be spared by attention to this rule.

SUBSCRIPTION.

SUBSCRIPTIONS may commence at any date, but the two volumes each year begin on January 1st and July 1st respectively. Terms per annum, 21s; post free at home or abroad.

Foreign subscriptions must be paid in advance. For India, Messrs. Thacker, Spink and Co., of Calcutta, are our officially-appointed agents. Indian subscriptions are Rs. 15.12. Messrs. Dawson and Sons are our special agents for Canada. For South Africa, The Record Publishing Co., Cape Town. Messrs. Geo. Robertson and Co., of Sydney and Melbourne, are our special agents for Australia.

REPRINTS.—Reprints of articles appearing in this JOURNAL can be had at a reduced rate, providing authors give notice to the publisher or printer before the type has been distributed. This should be done when returning proofs.

MEDICAL SOCIETY OF LONDON.

WE are requested to announce that owing to the War a change of programme has been made, so that on Monday, December 7th, at 8.30 p.m., a discussion will take place on "Tetanus," with special reference to (a) Prophylaxis; (b) The Serum Treatment of Established Tetanus, Dosage, and Method of Administration. The discussion will be introduced by Major D. Embleton, M.B., R.A.M.C., to be followed by Professor F. W. Andrewes, M.D., Dr. John Eyre, Lt. R. B. Blair, M.B., R.A.M.C., Dr. Carl Browning, and others.

A. M. M. (Eastbourne).—The compound is a synthetic one, of German manufacture. The price has, naturally, been considerably advanced since the war.

GENERAL PRACTITIONER (Manchester).—The view has been advanced that asthma is a toxæmia, due mostly to faulty nitrogenous metabolism arising from an excess of carbohydrates in the diet.

TU QUOQUE.—We have referred our correspondent's letter to the writer of the article, who has undertaken to make inquiries.

CHEMIST AND DRUGGIST.—The course pursued by our correspondent we believe to have been entirely correct.

T. F. A. (Newcastle).—According to Mr. D. Tait, of H.M. Geological Survey, a number of wells in the neighbourhood of Edinburgh were formerly used for medicinal purposes. The more important of these in the Wardie Shales are (1) Craiglockhart railway cutting; (2) St. George's Well, Stockbridge, Water of Leith (sulphurous); (3) St. Bernard's Well, Water of Leith (sulphurous); (4) Bonnington Mineral Well, on the Water of Leith; (5) the Physic Well, or Lady Well, at Corstorphine (sulphurous); (6) the Spa Well at Davidson's Mains in Barnton policies; and (7) Mid-Calder Mineral Well (sulphurous).

M.B.ABERD. (London, S.E.).—When chilblains are thoroughly established a course of electrical treatment is most beneficial. Failing that every means should be taken to maintain a good circulation and local friction may be employed once or twice a day with camphorated oil or weak spirit. Cod-liver oil rubbed into the extremities is said to be useful for the prevention of frost-bite.

DR. P. S. (Lincs.).—No harm will result from waiting a few weeks unless the nævus is growing rapidly. Any shock in a debilitated infant is liable to produce an attack of eczema in one so predisposed.

EXPECTANT.—Your letter was received as we were "at press," too late for present issue.

DR. H. WILSON.—Your paper is unavoidably held over, owing to pressure on our space.

Meetings of the Societies, Lectures, &c.

WEDNESDAY, DECEMBER 2ND.

ROYAL SOCIETY OF MEDICINE (SECTION OF OPHTHALMOLOGY) (1 Wimpole Street, W.).—8 p.m.: Discussion opened by Mr. Harold B. Grimsdale on the Necessity for an Exact Definition of Blindness. Clinical Cases will be shown.

ROYAL SOCIETY OF ARTS (John Street, Adelphi, W.C.).—8 p.m.: Dr. W. R. Ormandy.

THURSDAY, DECEMBER 3RD.

ROYAL SOCIETY (Burlington House, London, W.).—M. de Lange.

ROYAL SOCIETY OF MEDICINE (SECTION OF OBSTETRICS AND GYNÆCOLOGY) (1 Wimpole Street, W.).—8 p.m.: Specimens by Dr. Clifford White, Dr. H. Macnaughton-Jones, Dr. Trevor B. Davies, Dr. C. Hubert Roberts, and Dr. Cuthbert Lockyer. Short Communications by Dr. Thomas G. Stevens, Dr. C. Hubert Roberts, Dr. Edward Smeed, and Dr. Herbert Spencer.

NORTH-EAST LONDON CLINICAL SOCIETY (Prince of Wales's Hospital, Tottenham, N.).—4.15 p.m.: Clinical Meeting.

FRIDAY, DECEMBER 4TH.

ROYAL SOCIETY OF MEDICINE (SECTION OF LARYNGOLOGY) (1 Wimpole Street, W.).—4 p.m.: Cases and Specimens by Dr. William Hill, Sir William Milligan, Dr. Elphick,, Mr. C. W. Hope, Mr. Stuart-Low, Mr. Graham, and others.

WEST LONDON MEDICO-CHIRURGICAL SOCIETY (Society's Rooms, West London Hospital, Hammersmith, W.).—8.30 p.m.: Meeting.

MONDAY, DECEMBER 7TH.

MEDICAL SOCIETY OF LONDON (11 Chandos Street Cavendish Square, W.).—8.30 p.m.: Discussion on "Tetanus," with special reference to (a) Prophylaxis, (b) Serum Treatment of established Tetanus. Dosage: Method of Administration. To be opened by Maj. D. Embleton, M.B., R.A.M.C., to be followed by Prof. F. W. Andrewes, M.D., Dr. J. Eyre, Lt. R. B. Blair, M.B., R.A.M.C., Dr. C. Browning, and others.

TUESDAY, DECEMBER 8TH.

ROYAL SANITARY INSTITUTE (90 Buckingham Palace Road, S.W.).—7.30 p.m.: Discussion on "Preventive Inoculation," by Prof. G. Sims Woodhead, M.D., F.R.C.P., F.R.S.Edin.

Vacancies.

The Royal National Hospital for Consumption, Ireland.—Assistant Resident Medical Officer. Salary £200 per annum, with board and residence. Also a Laboratory Assistant. Salary £1 per week, with cottage. (See advt.)

Preston Royal Infirmary.—Assistant Resident Medical and Surgical Officer. Salary £120 per annum, with board, residence and laundry. Applications to Walter Davies, Secretary, 5 Winckley Street, Preston.

Taunton and Somerset Hospital, Taunton.—Senior House Surgeon. Salary £120 per annum, with board, lodging, and laundry. Applications to Reginald A. Goodman, Secretary.

Bradford Poor-law Union.—Assistant Resident Medical Officer. Salary £150 per annum, with rations, apartments, and washing. Applications to George M. Crowther, Clerk to the Guardians, Union Offices, 22 Manor Row, Bradford.

North Lonsdale Hospital, Barrow-in-Furness.—House Surgeon. Salary £150 per annum, with residence, board, and laundry. Applications to the Secretary.

York County Hospital.—House Physician. Salary £150 per annum, with board, residence, and washing. Applications to Fredk. Neden, Secretary and Manager.

Worksop Victoria Hospital and Dispensary.—Medical Officer and House Surgeon. Salary £150 per annum, with furnished rooms, coal, light and attendance. Applications to the Secretary.

King Edward VII. Welsh National Memorial Association.—Assistant Tuberculosis Physician. Salary £350 per annum. Applications to Gwilym Hughes, Secretary, Welsh National Memorial, Westgate Street, Cardiff.

Appointments.

RAW, STANLEY, M.D., B.S.Durh., F.R.C.S.Edin., has been appointed Honorary Surgeon to the Sunderland Royal Infirmary.

TAYLOR, JOHN MAXWELL, M.A., M.B., Ch.B.Aberd., D.P.H., Assistant Medical Officer of Health and Medical Inspector of Scholars to the Borough of Bootle.

Births.

BIGGS.—On November 2nd, to Mr. and Mrs. G. N. Biggs, of 31 Wimpole Street, and 2 Blenkarne Road, Wandsworth Common, S.W.—a son

CARLYLE.—On November 22nd, at 13 Menlove Avenue, Liverpool, the wife of Oliver Carlyle, F.R.C.S., of a daughter.

COMYN.—On November 26th, at 28 Deanville Mansions, Clapham Park, the wife of Captain Kenneth Comyn, Royal Army Medical Corps, of a son.

FAIRBANK.—On Tuesday, November 24th, at 84 Harley Street, the wife of H. A. T. Fairbank, M.S., F.R.C.S., of a daughter.

McMULLEN.—On November 25th, at 9 Templar's Avenue, Golder's Green, the wife of W. H. McMullen, F.R.C.S., of a son.

SEYMOUR PRICE.—On November 27th, at 57 Sloane Gardens, S.W., to Dr. and Mrs. P. Seymour Price—a son.

WINK.—On November 24th, at Ferndale, Carnarvon Road, Clacton-on-Sea, the wife of Charles Stewart Wink, M.R.C.S., Lieut. R.A.M.C.T.—a daughter.

Marriages.

CHOPPING—NEWLANDS.—On November 26th, at the Episcopal Church, Gatehouse of Fleet, Major Arthur Chopping, R.A.M.C., son of E. Chopping, Colchester, to Edith Jane, younger daughter of the late Joseph Newlands, Glasgow.

SCOTT—HICKS.—On November 23rd, at Copford Parish Church, Lieut. E. Scott, R.A.M.C., of St. George's Hospital, youngest son of Mrs. J. B. Scott, of Brabourne, Torquay, to Agnes E. Hicks, daughter of Mr. H. T. Hicks and Mrs. Hicks, of Walton House, Copford, Essex.

THOMSON—WHITTAKER.—On the 25th inst., at All Saints' Church, Blackpool, David A Thompson, M.A., M.B., B.S., son of the late David Thomson, Glasgow, to Eleanor, daughter of the lat Lawson Whittaker, J.P., and Mrs. Whittaker, Merlwood, Blackpool.

Deaths.

GREENHILL.—On November 26th, at 60 Temple Fortune Lane, Golder's Green, Edward Fowler Greenhill, M.R.C.S., L.R.C.P., late of Calcutta, aged 57.

MUSGROVE.—On the 23rd inst. (very suddenly), at Penarth. Charles David Musgrove, M.D.Edin., aged 49 years.

SIMPSON.—On November 24th, suddenly, at Buckie, Banffshire, William Simpson, M.D.Aberd., aged 65.

SKOTTOWE.—On November 16th, at Mohammerah, Persian Gulf, Alex. John Francis Skottowe, M.D., Glasg., late of Helensburgh, aged 48.

STATTER.—On November 21st, at Warren House, Wakefield, William Aked Statter, L.R.C.P.Edin., J.P., aged 65.

STEEL.—On Monday afternoon, November 23rd, from wounds received that morning at La Clytte, Major E. B. Steel, R.A.M.C., husband of Ethel Steel, Rosewood, St. David's Hill, Exeter, aged 43.

THOMPSON.—On the 26th inst., suddenly, in Croydon, Henry George Thompson, M.D., V.D., J.P.

THE MEDICAL PRESS AND CIRCULAR.

"SALUS POPULI SUPREMA LEX"

VOL. CXLIX. WEDNESDAY, DECEMBER 9, 1914. No. 24.

NOTES AND COMMENTS.

The Belgian Doctors' Fund. DURING the week a number of additional subscriptions to the Belgian Doctors' and Pharmacists' Relief Fund have been announced. The Irish medical profession has responded with a handsome list, which will be found elsewhere in our columns. Scotland is also responding to the cry of Belgian distress, and to-day Professor Jacobs, of Brussels, will address the Edinburgh Obstetrical Society upon "The Position of the Medical Profession in Belgium." The meeting takes place in the rooms of the Society at 8.30 p.m. on our day of issue, Wednesday, the 9th December, under the presidency of Sir J. Halliday Croom. In Liverpool a meeting was held on Friday last. Our own modest list has been augmented during the week, thanks in great measure to the exertions of Dr. H. Macnaughton-Jones. With regard to the whole question, it may be noted that the enlarged central committee has apparently not adhered to the original resolution of the small "provisional" committee of eight to purchase 2,000 packages of drugs at £5 each for despatch to Belgium, and has substituted the policy of sending 50 such packages as a tentative measure. It is interesting to note that the small provisional committee felt justified in its earliest meetings in sanctioning an expenditure of £10,000, as it affords some indication of their views as to the amount likely to be forthcoming in response to their appeal. For our own part, we still believe that no effectual and permanent relief can be offered to the Belgian doctors and pharmacists by private philanthropy alone, and that the sensible and statesmanlike course would be to urge upon Mr. Asquith's Government the desirability of granting an adequate loan for the purpose. Elsewhere we publish a list of additional contributions that have come during the week to the offices of the MEDICAL PRESS AND CIRCULAR,—also the Irish list. It need hardly be said that we shall be extremely grateful for any further donations that may be sent either to the English or to the Irish Editor.

The Sale of Poisonous Drugs. THE lax way in which poisonous drugs are often sold to the public is abundantly illustrated in the reports of police and coroners' courts proceedings. The legislature has logically gone to the root of the matter, and has endeavoured to safeguard, so far as may be, the sale of poisons. Results show, however, that their well-meant efforts fall lamentably short of the mark when applied to the daily life of the community. The poisons schedule might in all probability be strengthened with advantage. Veronal, for instance, which is at present in Schedule II. of the Sale of Poisons Act, might be brought under the more stringent restrictions of Schedule I. That drug is still responsible for deaths, and it is little short of a scandal that its sale should not be better safeguarded than by affixing the word "poison" and the name and address of the vendor upon the appended label. The failure of the Act, however, may be attributed in no small degree to defective administration, a not uncommon flaw that undermines many a sound and desirable law.

Evasion of the Act. THE fact of the matter is that the conditions attached to the sale of schedule poisons are often openly and flagrantly broken. That fact is demonstrated with monotonous persistency year in and year out by the evidence before the courts whose duty it is to inquire into accidental and criminal deaths from poisonous drugs. It is only in rare instances that the police take action in such cases against the vendors, so that the failure of the Sale of Poisons Act may be ascribed to the supineness of the Home Office and of the local authorities primarily concerned. Why should not the Public Prosecutor intervene if it be shown clearly in a public judicial court that any person has sold a schedule poison without due observance of the statutory conditions imposed upon the transaction? If the scope of his official duties be too restricted, or his other work too exacting, to permit him to undertake so elementary a task as that of the protection of human life against an obvious statutory danger, then let the State extend his office and add to his powers. So far as that goes, he should, in our opinion, be required to look after the sale of a great number of dangerous drugs which are not at present scheduled, but which are more or less capable of doing a vast amount of damage to the health of our citizens.

A Case for the Police. A CASE in point may be taken from the Coroner's Court of the City of London, where the death of an Indian subject from the effects of cocaine and morphine was recently investigated. Deceased lived with a retired civil engineer, and both were addicted to drug habits. While on a visit to London the female was found unconscious, and died shortly afterwards under circumstances that left no reasonable doubt that the death resulted from narcotic drugs, to the taking of which deceased had for many years been addicted. The engineer stated in evidence that he had known her take ten grains of cocaine in one day. The point with which we are more immediately concerned, however, is that part of the evidence in which the engineer swore he had obtained cocaine of a Holborn chemist and did not sign the poison book. Several of the bottles were produced in court and were without label or any indication of any kind whatever as to the poison or its nature, or the name and address of the chemist. Neglect of statutory precautions in this way clearly becomes an offence under the Act, and the learned coroner, Dr. F. J. Waldo, very properly called the attention of the City Police to the matter, in order that the truth of the engineer's evidence might be sifted, and, if necessary, a prosecution might be thereafter undertaken. The matter is one of considerable social importance, and the report of the police investigation will be awaited with interest. As things stand, it seems pretty evident that it is to the zeal and efficiency of police administration that the public must look for the proper enforcement of the Sale of Poisons Act. We hope to deal further with this matter at a future date.

Iodine in the Field.

Now that the futility of attempting to carry out the principles of asepsis in the treatment of wounds inflicted in battle has become recognised by the medical staffs of the Allied Forces, there seems to be a likelihood of some uniformity in the antiseptic employed in first-aid. The French soldier has for some time been equipped with his own field-dressing of iodine, in the shape of two small glass bulbs joined together by a neck, one containing a little tincture of iodine, and the other a brush for applying the same to a wound. It was announced last week that Sir Frederick Treves, with the full approval of the War Office, has been enabled, through the generosity of two private donors, to effect an improvement in the medical equipment of the troops at the front. The British Red Cross Society and the St. John Ambulance, it is understood, will now make it possible for every man henceforth to have in his own kit a neat little ampoule of iodine, prepared by English manufacturers, so that the British soldier shall not be behind his French colleague in the important matter of first-aid equipment. If by this means the number of suppurating wounds can be reduced, with all their untoward sequelæ, the innovation will indeed be a blessing.

The Medical Roll of Honour.

Since the publication of our last list, the following casualties among medical officers serving at the front have been reported:—Officers killed: Major P. P. Atal, I.M.S., and Capt. Indarjit Singh Kunwar, I.M.S. Officers died of wounds: Lieut. G. H. Chisnall, R.A.M.C. Officer previously officially reported missing, now unofficially reported prisoner of war: Captain H. G Robertson, R.A.M.C. Officer reported wounded from Persian Gulf: Major T. G. F. Paterson, I.M.S.

LEADING ARTICLES.

MODERN MEDICAL JOURNALISM AND ITS DIFFICULTIES.

Medical journalism, needless to say, is intimately concerned with the welfare and the progress of the learned profession with which it is connected. Upon its accuracy, its uprightness, its impartiality, and its general good faith and tenacity to high ideals depends to no small extent the progressiveness of the medical world, not only in its collective ethics, but also in its politico-social and in its scientific aspects. That being so, we make no apology for referring pointedly to a recent occurrence in that particular branch of journalism to which attention has been drawn. The matter has been called attention to by more than one correspondent. It is a sin of omission—if sin it be—rather than of commission, and it is to be hoped, for the credit and honour of certain of our leading journals, that some ample, convincing explanation may be forthcoming. In our issue of November 18th we commented upon a series of eleven cases of poisoning by amylene hydrate, a hypnotic drug of comparatively recent introduction, at Bethlem Hospital. The facts were simple: a temporary assistant medical officer, in the absence of a dispenser, dispensed the medicine with his own hands, and instead of the diluted preparation gave one ounce undiluted to each of the eleven patients, five of whom died shortly afterwards and a sixth at a later period. The case was clearly one of misadventure; it was one in our opinion that preeminently called for mention and comment in a medical journal. The drug concerned is seldom used, we believe, outside asylum practice, but it was regarded as a safe hypnotic; on that account its adoption into general practice would sooner or later inevitably follow. So far as the medical man is concerned his part, although unfortunate and calamitous, was one that would secure sympathy rather than blame from his medical brethren. As to the system that left the dispensing of such drugs, whether temporary or a habitual, in the hands of any but a skilled dispenser that is a point demanding, in our opinion, careful investigation, with a view of the prevention of similar accidents in future. From all points of view, that of the medical man chiefly concerned, of the ancient institution in which these fatal poisonings occurred, of the medical profession requiring scientific information, of asylum inmates demanding future protection, and of the public interests, we venture to assert that the case demanded full and impartial notice in our professional journals. What are the facts? Two inquests were held, but we fail to find a line of editorial comment in either the *British Medical Journal* or the *Lancet*. Were it not for the notice in our own journal the future student of toxicology would ransack in vain the columns of the two former journals for any record of so tragic and important an event as that of six fatal cases of poisoning by amylene hydrate. That being the case, it remains only to speculate as to the silence observed by the two journals in question. It is difficult to accept either of the explanations that would, perhaps, be sufficient in the case of journals of lesser standing, namely (1) that the matter was purposely hushed up; (2) that it was not regarded by the editors as sufficiently important to be noticed in their columns. We should be sorry to attribute in either case either lack of independence or of journalistic competence. For all that the fact remains, and the medical world, in our opinion, is entitled to ask for some explanation, which will doubtless be forthcoming. The fatal poisonings took place at no remote date, and it is still open to the journals in question to publish an account of the inquests and to comment upon the whole matter from the various scientific, administrative and medico-social aspects. Failing some such step a somewhat unhappy doubt will be thrown upon the vigilance and impartiality that are usually associated with two at least of the journals that claim to form medical opinion.

Then, again, the scientific aspects of the case are of considerable interest. The learned coroner, Dr. F. J. Waldo, suggested at the inquest that death was due to acetone intoxication, a possibility that was not discountenanced by Dr. Spilsbury. In our issue of December 2nd the history of the drug was reviewed by a correspondent, Dr. George Foy, of Dublin, who showed that our knowledge dated from the researches of Karl Scheele into the nature of fusel oil in 1780. The first fatal case was reported in 1857, in which year the Academy of Medicine of Paris recommended the disuse of the drug. In curious contrast with the silence of our contemporaries is the wide publicity given to the asylum fatalities in the lay Press.

CURRENT TOPICS.

Thanatography.

There is usually supposed to be some difference between life and death. The conditions are not commonly confused. We see a man walking in the street, and, however antediluvian his mentality and semi-comatose his manner, we still know, in our heart of hearts, that he is alive. Life has never been efficiently defined. It is too common. We are so surrounded and imbued with it and its many manifestations that we cannot dissociate ourselves from it. We cannot look at it disinterestedly from the outside and give an unprejudiced account of it. No one has disinterestedly eye-witnessed life and lived to tell the tale. For all that, we think we know life when we see it. The man in the train smash knows little of cell death, but he can recognise a corpse—or he thinks he can. Some men will take no responsibility. They proclaim loud and often in the papers, that they know not life from death. They think no one else does, either. They expect people to make mistakes. They look forward to being buried alive. They live in fear of life. If they could be sure of death they would die happy. Some of them instruct the physician who personally conducts them to Charon to divide their carotids or to carry out some other equally messy and drastic operation. Others use the thanatograph. This is an indication of the cessation of life; not a prophet like the death watch nor an accompaniment like the death rattle, but just a teller of the past. It is a pincers with a cruciform punch. It is pressed into the grey lips of the dead and left so for six or eight minutes and then withdrawn. If the dead agrees with the diagnosis he gives no sign. On the other hand, the protesting, flickering life obliterates the sign of the cross: being dead, yet he speaks. The instrument may be useful, as its inventor hopes, but we cannot look for its universal application. We doubt the frequency of premature interment, and we believe that this ingenious idea will do little to distinguish more accurately those who have passed and those who have to pass across the Great Divide.

German and French Bullets.

During recent wars many observers have been astonished at the apparently comparative harmlessness of the modern rifle bullet, and lately German military authorities have put forward the paradoxical claim that the German projectile is a "humane missile." It is interesting, therefore, to compare the German "S" bullet with the French "D" missile. Both are conical in shape: the German is composed of a hard leaden core with an envelope of soft steel; the French bullet is of solid brass without an envelope, and is the longer and heavier of the two. Up to a distance of 500 yards the German ball has not the penetrating force of the French, but at distances of 1,000 and 2,000 yards it has a distinct superiority. As regards the severity of the wound inflicted, the wound caused by a "*balle ricochée*" is much more serious than that caused by one which has found its billet without interruption of its course. The bullet which ricochets becomes deformed, jagged, flattened out, or separated from its envelope: it strikes the body either obliquely or transversely, and tears, instead of boring, its way through the tissues. The German bullet, with its leaden core and cuirass of steel, becomes a much more injurious missile after contact with the soil than the French bullet of solid brass. Delorme, in the book we noticed last week, states that one out of every three rifle wounds are caused by *balles ricochées*. Journée has estimated that 25 per cent. of bullet wounds are fatal; 15 per cent. produce grave injury; the remaining 60 per cent. producing only slight flesh wounds. If, thanks to their slender calibre and pointed extremities, the "S" and "D" bullets actually produce a series of 60 per cent. of hits causing only slight wounds, nevertheless it still seems to us to be pushing the love of paradox rather far to call a missile "humane" that can pierce several men at 500 yards, and can exercise a fatal effect at a distance of two miles! In the course of every war one side or another is accused of using explosive bullets: the use of these inhuman missiles has been included amongst the list of German "atrocities." Prof. Delorme authoritatively states he has come across no such instance. He tempers this reassuring statement with the observation that the "humane" ricocheting bullet is far more deadly, as an explosive bullet could no longer lay any man low after the slightest contact with the soil.

Fresh Air and Metabolism.

An interesting report to the Local Government Board under the grant for auxiliary scientific investigation has recently been made by Professor Leonard Hill, F.R.S., on ventilation and the effect of open air and wind on the respiratory metabolism. After disposing of the idea that an organic poison of a protein character exists in exhaled air, Prof. Hill states that, as a result of numerous experiments upon students and also upon animals, heat stagnation is the cause of the discomfort and of the symptoms arising in the so-called vitiated atmosphere of crowded assemblies and stuffy apartments. The effect of a warm confined atmosphere upon the mucous membrane of the nose has been described by Dr. F. F. Muecke in conjunction with the author of the report. So great is the swelling of the mucosa in a close and ill-ventilated place that on going out into the cold the blood vessels shrink at once leaving a thick secretion and a good deal of tissue lymph as a capital medium in which bacteria may develop. Thus a "cold in the head" is acquired. By the aid of the katathermometer, a modification of the ordinary instrument devised by Prof. Hill, the rates of cooling of the body can be determined, and experiments conducted therewith have demonstrated the fact, among others, that the cooling of the face and hands in cold winter weather excites an increase of metabolism. It is concluded that the beneficial effects of open-air treatment and exercise upon the consumptive act through the improved metabolism resulting from more ample ventilation of the lungs and a more vigorous circulation, rather than from auto-inoculation. When the atmosphere is still and saturated with moisture, as it so often is in great cities, the advantageous increase in metabolism does not take place. Practically, it comes to this, that excessive protection from cold weather—in other words, coddling—only lessens individual immunity and increases the susceptibility to pulmonary affections.

The Liverpool Tropical School Expedition to West Africa.

Last week we referred briefly to the fact of the departure from Liverpool of an expedition from the School of Tropical Medicine to West Africa. The members of the party, who are now on their way to Sierra Leone, consist of Professor Warrington Yorke (Walter Mayers Professor of Parasitology) and Dr. B. Blacklock, the director of the Runcorn Research Laboratory. The object of the expedition is different from those of its predecessors, for it is mainly concerned with the inspection of the district with a view to the selection of a suitable site for the erection of the "Sir Alfred Jones" Laboratory of the School in Sierra Leone. The establishment of such an institution upon the coast will prove to be a great advantage, for it will serve as a centre for research which cannot be satisfactorily carried on in this country, for students can be trained actually amongst the diseases with which they will have to deal. A study of the biting insects and of the tropical diseases incidental to West Africa must ultimately tend to the material improvement in the health of the colony. Thus the Liverpool School, in sending forth its thirty-second expedition, is maintaining its high reputation in its efforts towards the advancement of public health in the tropics. Its members have already covered themselves with glory, and we doubt not that their newest venture will be as productive of gain to the cause of preventive medicine, and, therefore, of beneficent results to the race, as those in the past have been.

Idiosyncrasy to Cow's Milk.

We all know that the transition from human to cow's milk is often marked by infantile disturbances. There is a certain intolerance due to changed diet which is soon overcome by use. But there is apparently a more definite condition in which the child is unable to take even minute portions of cow's milk without the most striking and disastrous effects. All the cases in literature, with one exception, have occurred in German hospitals. The subjects of this curious condition are invariably weakly children who have been artificially fed and, having done badly, have been fed by a wet nurse, and thereby have recovered weight and vitality. Any attempts at weaning are followed by a violent reaction. The first bottle containing cow's milk is drunk with difficulty by the child, who vomits repeatedly during the meal. He then becomes collapsed, pale and cyanosed. The temperature ranges from 100 deg. to 104 deg.; the motions become fluid, shiny and lumpy, the urine sometimes contains albumin. The child recovers when put back on a diet of human milk, but takes some eight or ten days to do so. And the same reaction occurs when the child is again given cow's milk unless he is given it very gradually and cautiously, when he ultimately becomes immune, and may be fed on it without ill effects. The constituent in the milk responsible for the symptoms has not been discovered. They can be induced by the casein alone or by the fats alone. *Per rectum* the milk is innocuous. The idiosyncrasy may become apparent even after ten drops of equal parts of cow's milk and oatmeal soup. As we have said, this condition has not yet been noted in these countries. We must suppose it exists, and at any rate it will be a convenient diagnostic label for many of our nutritional difficulties.

Ptyalism—a Danger Signal.

The excessive secretion of saliva that occurs in certain nervous disorders, and as a result of the administration of mercury and pilocarpine, is, of course, familiar to all medical practitioners. That ptyalism may constitute a pathological sign of considerable importance in connection with arteriosclerosis has been shown by Dr. H. Stern, of New York (*a*), who points out that measurements of the actual quantity of saliva excreted are apt to be fallacious, since what might be regarded as an excessive secretion in the case of one individual may not be so in another. The best clinical guide as to the existence of genuine ptyalism is the patient's own feelings, for the uncomfortable sensation of having the mouth constantly over-full of saliva is quite characteristic. Three cases are described in which profuse salivation was the precursor of paralytic phenomena by a few months. Each patient was the subject of renal disease in the early stages. The kidneys were functionally active almost up to the last in all three, and death took place from cerebral embolism and coma, the latter following a hemiplegic attack in one case. Little doubt existed as to the degenerated state of the cerebral blood-vessels in these cases. The occurrence of ptyalism in uræmia has frequently been noted by clinical observers, and has been attributed to chemical irritation of certain areas of the cortex. When salivation takes place earlier in the course of renivascular disease, it may be assumed that the vessels in the neighbourhood of the salivary secretion centres are affected. At any rate, the appearance of ptyalism under such circumstances, in the absence of any other cause, may be looked upon as an unfavourable sign in the course of arteriosclerosis.

The Darley Dale Sanatorium Colony.

In August last it was decided by the Leicester Corporation, acting in conjunction with the Leicester Borough Insurance Committee, to establish an experimental sanatorium colony for male consumptives at the Darley Dale nurseries. Accordingly a galvanised iron building within the nursery grounds was occupied by seven phthisical patients, and the colony, which was a going concern for nine weeks, was provisionally recognised by the Local Government Board as an "approved institution." The building was lighted by gas, well-ventilated, and it had a concrete floor. All

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(*a*) *Archives of Diagnosis*, October, 1914 necessary equipment was provided by the Leicester Sanatorium. The men were allowed ten shillings each per week for food and eighteen pence per head for pocket money. The daily routine consisted in doing the cooking of the colony, in which the patients cheerfully took turns, and in working six hours a day in weeding and tying-up plants in the nurseries. During the nine weeks the total earnings amounted to £14 8s. 4d., equivalent to 4s. 11d. per week per man. All the patients put on weight at the expiration of the time, and when examined by the medical officer of the Corporation tuberculosis dispensary upon their return, were found to show physical signs of improvement. One patient, says the *Leicester Daily Post*, has even been accepted as a recruit for Kitchener's Army. Dr. C. Killick Millard, the Medical Officer of Health, in an official report upon the Colony, regards the scheme as having been a success so far as it has gone, and he hopes that it may be possible to give it a trial next year upon a larger scale, beginning earlier in the year. The great advantage of the Darley Dale scheme is that it implants in the patients a liking for outdoor work, so that the after-treatment of a discharged individual from such a colony would be rendered somewhat easier to carry out.

Self-Massage in Chronic Constipation.

The value of external abdominal manipulation for the relief of chronic constipation has long been known. The reason why it is not more generally adopted is largely due to a failure to appreciate its beneficial influence, to want of time, and to a general aversion to muscular effort. It is so much easier to take drugs than to pommel one's abdomen for five minutes every morning, or even to indulge in other forms of bedroom athletics, such as the gentle art of chair-swinging, which, when righly performed, requires the space of a good-sized gymnasium. Enthusiasts in the practice of massage have devised various mechanical helps which, to a certain extent, supersede the fingers, and which are said seldom to fail to excite the desired colonic contractions. Dr. Hale Powers, of Boston City Hospital (*a*), recommends the use of half-pound wooden dumbbells with which to knead the abdomen. The patient should lie down with thighs partially flexed, so as to relax the abdominal muscles, and the massage is begun at the cæcum, the course of the large intestine being gently followed. Only deep pressure is required, and the dumb-bells should be held by the head farthest away from the body. The method is said to be superior to that devised by Sahli with cannon-balls, because a gentle to-and-fro movement can be kept up, similar to that performed by a skilled masseur. After massaging in the supine position for a short time, the patient is directed to turn on his left side and to apply the massage again. Needless to say the movements should only be attempted when the stomach is empty.

PERSONAL.

His Majesty the King has been graciously pleased to approve the appointment of the undermentioned Medical Officers to be Companions of the Distinguished Service Order, in recognition of their services with the Expeditionary Force, specified below:—

Captain James Stuart Dunne, R.A.M.C.—During German attack on night of October 31st, near Messines, he established a dressing station just behind the trenches, and was the means of saving many lives, he himself going several times into the trenches to attend to wounded men who could not be moved.

Captain Patrick Sampson, R.A.M.C.—Has shown frequent and conspicuous gallantry throughout the campaign, especially on October 21st and 22nd, attending wounded men under very heavy shell fire.

Captain Sidney John Steward, R.A.M.C. (Special Reserve).—Went with party of stretcher bearers across ground swept by rifle and shell fire to Langemark village and removed 11 wounded men.

The names of the following medical officers were included in the supplementary list issued last week to be added to those appended to Sir John French's dispatch dated October 8th:—Col. S. Westcott, Staff R.A.M.C., and Lieut. H. Beddingfield, R.A.M.C.

The name of Fleet-Surgeon E. J. Finch, R.N., is included among the names of officers mentioned in a dispatch from Major-General A. Paris, dated October 31st, as having rendered good service during the operations around Antwerp on October 3rd to 9th.

Dr. Henry Jellett, Master of the Rotunda Hospital, Dublin, has left for Flanders in charge of a motor ambulance with our Forces.

Sir Berkeley Moynihan, F.R.C.S., left for France last week to take up his appointment as a Consulting Surgeon to the Expeditionary Force.

Mr. George G. Farquhar, M.B., Ch.B.Aberd., F.R.C.S.Eng., has been appointed Honorary Surgeon to the Darlington Hospital.

Dr. George Norton Bartlett, M.B., B.S.Lond., L.R.C.P., M.R.C.S., has been appointed Medical Superintendent of the Exeter City Asylum.

Mr. R. Atkinson Stoney, Surgeon to the Royal City of Dublin Hospital, has left Dublin for Villeneuve to take temporary service under the French Red Cross.

Lieut.-Col. R. E. S. Davis, I.M.S., Hon. Secretary of the Ulster Volunteer Force Medical Board, has been appointed in charge of a hospital in Brighton for Indian troops.

It is announced that Professor John Wyllie, M.D., who has held the Chair of Medicine in the University of Edinburgh for fourteen years, has intimated his resignation thereof.

Dr. J. D. Ingram, M.D.Edin., D.P.H., of the Crossley Sanatorium, Kingswood, Frodsham, has been appointed Assistant Medical Officer of Health to the Borough of Yarmouth.

Sir C. B. Ball and Sir Thomas Myles have been appointed Consulting Surgeons to the troops in Ireland with the temporary rank, pay and allowances of Lieutenant-Colonels while so employed.

Dr. A. A. Bathe, of the Winsley Sanatorium, was the recipient the other day of a suitable presentation by the patients resident therein upon his leaving the institution to take up an appointment in Hampshire.

Dr. Howard Davies, who has recently retired from the position of Medical Officer of Health of the Pontypridd district after 28 years' service, was the recipient the other day of a handsome piece of silver by the chairman and members of the Council.

Sir Frederic Eve, F.R.C.S., has been elected Consulting Surgeon to the London Hospital upon his resignation of the position of Senior Surgeon thereto. Sir Frederic will deliver the Bradshaw Lecture before the Royal College of Surgeons of England on Tuesday, December 15th, at 5 p.m., on "Acute Hæmorrhagic Pancreatitis, with remarks on the Ætiology of Chronic Pancreatitis."

(*a*) *Journ. Amer. Med. Assoc.*, November 7th, 1914.

FRENCH CLINICAL LECTURE

ON

THE UTILISATION OF ULTRA-VIOLET RAYS IN MEDICAL THERAPEUTICS (QUARTZ LAMP AND VAPOUR OF MERCURY).

By DR. HENRI DAUSSET,

Assistant in Physiotherapy at the Medical Clinic of the Hotel-Dieu.

[Specially Reported for this Journal.]

The carbon or iron arc lamp and the Kromayer lamp have up to the present been the two principal sources of ultra-violet rays utilised in the various medical applications of their therapeutic properties. It is extremely difficult to obtain a sufficiently steady and continuously uniform light with the arc lamp, whatever pains we may have taken in the outfit and adjustment. And with the Kromayer lamp we can carry out a course of treatment of cutaneous affections in such cases only as are limited to small superficial areas.

Then, again, the mercurial vapour lamp has for some time been utilised by certain dermatologists who recognise the facts, that: it is more powerful than the Kromayer, and is adaptable to therapeutic applications of wider range of extent and more distinctly medical nature. These lamps have been tried in France by Nagier, Vignard, and Joffray; their therapeutic properties have also been tested in Germany by a certain number of experimental clinicians.

Thanks to the obliging courtesy of the Cooper Hewitt Institute, I have been enabled to use a quartz mercury-vapour lamp for several months in the service of my master, Professor Gilbert. This lamp is furnished with a continuous electric current of from 110 to 220 volts, or with an alternating current produced by the adaptation of a Cooper-Hewitt converter. It furnishes a very large proportion of extreme and intermediate ultra-violet rays, which have, as we know, an injurious effect on the eyes (producing conjunctivitis as the result of even an exposure of brief duration), and on the skin itself. Accordingly, in order to limit the field of action of the light, and prevent the rays from reaching the eyes of either the patient or of the assistants, the lamp is placed in a metallic reflector, the opening of which is directed downwards. The whole being then suspended on a hook, it will be found very easy to raise or lower the lamp at will, according to the needs or convenience of its therapeutic application. We have also had care taken to cover the lamp, and the part of the body that we want to isolate, with a thick black screen which thus serves to protect the eyes of the patient and of the assistants.

Technique adopted in our procedures.—The lighting of the lamp is effected by causing it to tilt, so as to connect the two electrodes by mercury, which thus forms a short-circuit and vaporises; and the mercurial arc then furnishes a luminous glow. When this has continued for about ten minutes, the lamp attains its normal *régime*, and the therapeutic application can be commenced. Then we adjust that portion of the surface of the body on which we desire to have its therapeutic effects obtained (cauterisation, slight erythema, progressive pigmentation) at a distance of 10 to 40 centimetres, or even a metre, from the lamp; and the period of exposure is made to vary between limits of about five to thirty minutes, according to the requirements of the individual case.

Then, again, baths of this light can be arranged for the whole surface of the body as easily as the localised exposures. In the latter case, we can cover with black paper all the integumentary areas which we desire to screen off from the effects of the illumination. We have utilised the unfiltered light of the lamp, taking care to adopt due precautions. A standardised supply of citrate photographic paper has enabled us to estimate the dosage of rays employed—much more crudely, it is true, than if we had utilised the actinometers of Bodier and of Nagier.

Technique of Vignard and Joffray.—These authorities, acting on the advice of Professor Nogier, have filtered the luminous rays of the mercury-vapour lamp through a glass of which the composition and thickness are calculated so as to effect the complete arrest of the noxious ultra-violet rays; and permit the passage of those only that have a wave-length of 4,000 to 3,000 Angström, which constitute the ordinary ultra-violet radiation. As a result, we can permit the insolation to take effect for several hours daily without deleterious consequences, and without production of much more pronounced pigmentation of the skin than that provoked by a five minutes' exposure to the unfiltered light of the quartz lamp.

Accordingly, we are here provided with two forms of *technique*, each of which has its special indications. Before describing the respective results obtained by their adoption, I wish to glance rapidly at the phenomena provoked by exposure of patients to the insolation. The unfiltered light may produce, when applied to a surface placed at a small distance from the lamp (10 to 20 centimetres), a superficial burn with *vesication*—if the period of exposure exceeds four or five minutes at the first *séance* (this is a chemical effect, not a calorific one, as the light is practically cold). In case of an unseasoned subject, vesication can be obtained at a distance of one metre by an exposure of a dozen minutes. On the other hand, if the patient has been progressively subjected to increasing dosage of the light rays, the skin may be found to bear without injury exposures of much greater duration—of half-an-hour, and even more, and at the same distance.

If, however, we diminish the duration of the exposure, we obtain, after that of the first day, a more or less pronounced degree of *erythema*, which is accompanied with a slight pruritus. This erythema appears after the lapse of an interval of about an hour from the time of exposure, and is accompanied by *pigmentation* of a degree which is always more marked in proportion to the degree of prolongation of the exposure; this is succeeded by desquamation. Thus we can produce at will on our patients the various local effects of *coup de soleil.* The resulting pigmentation disappears towards the end of the third week.

Just as has been remarked in cases of application of the solar rays, there are subjects of blonde complexion, whose skin is not readily pigmented by exposure—even on utilisation of much larger doses than those used with persons of brownish skin. Then, again, notwithstanding the noxious qualities of the extreme ultra-violet rays, I have never yet—thanks to the precautions always taken—produced either conjunctivitis or any intense reaction of the general integument.

By filtration of the rays of the mercury vapour lamp, Vignard and Joffray have also in this way obtained pigmentation after a certain number of exposures. Those exposures were very prolonged—one patient had had his knee exposed to the lamp for a period of nineteen hours daily—and yet displayed no evidence of burn. Nevertheless, the degree of pigmentation appears to be less pronounced than that produced by the natural heliotherapy in similar conditions of weather.

From the above data, it is necessary to bear in mind above all things that, in the first of the above-mentioned forms of *technique* we utilise the extreme and intermediate ultra-violet rays—1,000 to 3,000 A—of the action of which we possess but a quite superficial knowledge. In the second *technique*, we utilise the ordinary ultra-violet rays, 3,000 to 4,000 A, which are transformed by contact with the skin into rays of greater wave-length, which are consequently more penetrating. The following are the conclusions presented by Professor Nogier at the close of an article on this subject of ultra-violet radiations:—

"From this rapid examination of the properties of ultra-violet rays it results:

"1. That, if we wish to obtain biotic effects in therapeusis, it will be necessary to limit ourselves to the clinical use of the rays of the visible spectrum and the ordinary ultra-violet ones;

"2. That, if we seek for bactericidal effects, we must have recourse to the intermediate ultra-violet;

"3. That, it is useless to seek for sources of light rich in their proportional production of the extreme ultra-violet rays, inasmuch as those rays do not act at a depth, while they are productive of very painful cutaneous reactions."

THERAPEUTIC RESULTS.

These conclusions *are confirmed by the facts,* and the therapeutic results demonstrate the fact that the *first technique* (that with extreme and intermediate ultra-violet rays, unfiltered light) *should be reserved for superficial affections,* for cutaneous diseases; while the *second seems to be very efficacious in deep-seated affections,* for cases of osseous tuberculosis are cured by prolonged exposure to the filtered rays of the quartz lamp. Thus, by exposing patients, once or several times, to the unfiltered radiations of the quartz Westinghouse Cooper-Hewitt lamp (3,000 candle-power) and utilising the bactericidal and caustic properties of the ultra-violet ones, I have obtained interesting results in such cases as the following, which I have had occasion to treat:

Bromic acne, which can be destroyed all over the surface of the body at a single *séance,* with a complete bath. It does not re-appear if we have occasion to treat the pigmentation by subsequent exposures;

Sycosis of the bearded portion of the face has disappeared after the *séances,* which also produced strong pigmentation;

Varicose ulcers of many years' standing have been improved with a fair degree of rapidity, but without our being able to produce the slightest degree of pigmentation of the defective tissues;

Tuberculoses of the skin and *indolent wounds* have been benefited by the rays.

Cases of recurrent *furunculosis* of the nuchal region have been arrested, without any visible cutaneous reaction, by one or two *séances* of eight minutes' exposure, at a distance of 20 centimetres.

In Germany numerous cases of cure have been published: of *pruritus, pelade, psoriasis, eczema,* etc.

With the unfiltered rays I have not been able to obtain any modification of deep-seated lesions, arthritis, white swelling, etc. *In these cases, it is necessary to follow the technique of Vignard and Joffray* (filtered rays, prolonged *seances*). Those authors have recently shown patients at the Congress of Thalassotherapy held in Cannes, who had been affected with *articular tuberculosis,* which were perfectly healed, and with almost perfect re-establishment of the normal movements, the sole treatment being with artificial heliotherapy—which was carried out with a lamp of 6,000 candle-power. Vignard has just published photographs of those cases in *l'Avenir Medical* (May 1st, 1914).

In those cases, it is obviously difficult to isolate for purposes of clinical recognition the respective actions of the ultra-violet and the visible spectrum; for, as I have already remarked in a former publication, the *therapeutic results* furnished by luminotherapy *were more perfect in proportion as the intensity of the light used was more elevated, and the duration of exposure more prolonged*—even in the absence of ultra-violet rays (*Société de medecine de Paris,* 1914). This is also the opinion of Vignard and Joffray, and of Nogier.

Then it is also true that I have been able to obtain a cure of a *spina ventosa* by the prolonged action of the Nernst lamp, which has a great power of penetration and yields a smaller proportion of ultra-violet rays than does the vapour of mercury lamp.

From the facts already detailed, we may deduce the conclusion that in the quartz mercury-vapour lamp we possess a very powerful source of light—ranging from a 1,000 to a 9,000 candle-power—and one which yields a large proportional quantity of ultra-violet rays—extreme, intermediate, and ordinary—the direct action of which can be successfully utilised in the most extensive cutaneous affections, and the attenuated action in deep-seated affections—in default of natural heliotherapy.

NOTE.—*A Clinical Lecture by a well-known teacher appears in each number of this Journal. The lecture for next week will be by Henry Russell Andrews, M.D., B.S.Lond., F.R.C.P.Lond., Obstetric Physician to the London Hospital, etc. Subject: "Ante-Natal Syphilis."*

ORIGINAL PAPERS.

SOME LEGAL AND PRACTICAL ISSUES RAISED BY THE NEW BRITISH PHARMACOPŒIA.

By H. WIPPELL GADD, F.C.S.,

Barrister-at-Law, formerly Lecturer on Pharmacy, University College, Exeter.

The new British Pharmacopœia, which is to be published and become authoritative on the first day of January next, but which has already been available for inspection and review, presents features of more than common interest and involves issues of more than common gravity.

This is not because the changes are more sweeping or drastic than on former occasions; indeed, they are less in number than were those which were brought about some sixteen years ago, when the then new Pharmacopœia of 1898 replaced the volume issued in 1885. But the edition which we are now considering is epoch-making by reason of the fact that it appears to close more than one chapter in the history of medicine, and definitely, if imperfectly, to introduce or accentuate chemical methods.

Time was when physicians culled their own simples, from which they personally compounded the medicines, which they subsequently administered to their patients, but the complexities of civilisation soon led to a differentiation of functions, and orders of compounders or dispensers, apothecaries and pharmacists, have arisen to relieve prescribers of some portion of their erstwhile duties.

That the essential co-ordination between the several branches of the healing art should be complete, it is necessary that they should have some common ground—that is to say, a language understood by both; a uniform guide at the service of each.

This is the origin of Pharmacopœias, which register drugs and describe how medicines are prepared, thus ensuring that a name or short description shall signify the same substance in the same condition both to the one who prescribes and to the one who compounds.

In the earlier Pharmacopœias the best results were thought to be obtained by giving careful and exact descriptions of crude drugs with detailed directions as to their cultivation, and subsequent treatment, but lately attention has been more devoted to the evaluation of finished products.

This has been largely due to the fact that in view of the infinite variation of natural products, much careful labour has been expended on the isolation of active principles (if perchance the secrets of what in old times were called the virtues of a drug may be uncovered), but while active principles, notably alkaloids, have been in many cases successfully extracted, and isolated in a pure state, it has not always been found that they have produced the same beneficent results as are derived from the herbs from whence they have been extracted. In dissecting and analysing, perchance even in purifying, it may be that we have destroyed subtle entities of inexplicable power; and the best school of therapeutic thought has desired to use the natural drugs, but to have them standardised to a regularity of potency by an estimation and adjustment of their active principles.

To this end, alkaloidal estimations were introduced partially and tentatively in the Pharmacopœia of 1885, and more completely in that of 1898, whilst in the volume now before me, they are extended and are accompanied by similar estimations of active constituents other than alkaloids.

Indeed, the whole trend of the new Pharmacopœia is towards the application of chemical methods of analysis both to crude drugs and to compounded articles. Less stress than ever is laid on the sources of drugs; more on their yield, and even such products as volatile oils are valued more by their reactions in the laboratory than by the conditions of soil and climate, under which they have been produced. Again, synthetic chemicals are prominent; usefully, no doubt, and because of their proved value, for the official book errs if at all on the side of caution, and casts the ægis of its authority only over such combatants in the war against disease as have won their martial honours, so to speak, as free lances.

All these changes tend in the same direction, namely, that of sharpening the instruments in the physician's armoury, and, whilst increasing their potency and usefulness when correctly and carefully applied, accentuating *pro tanto* the danger of misuse.

In an editorial article published in this paper on October 7th last, it was remarked, after detailing the alterations in strength and dosage of some important drugs:—"It is always difficult to adjust oneself to the habit of giving a familiar drug in an unaccustomed dose, and we fancy that on and after January 1st, when the book becomes official, there will still be a brisk demand for the 1898 tinctures of the above-mentioned drugs."

Doubtless this statement is correct, but will all prescribers recognise or even know the necessity of putting "1898" or an equivalent symbol after the name of the preparation they order, and, if they do not, what will be the effect? For answer, it may be necessary to examine legislative enactments referring to the Pharmacopœia and to consider briefly its legal position and purpose.

The Medical Act, 1858, 21 & 22 Vict. c. 90, section 54, enacted: "That the General Council shall cause to be published under their direction a book containing a list of medicines and compounds and the manner of preparing them, together with the proper weights and measures by which they are to be prepared and mixed, and containing such other matter and things relating thereto as the General Council shall think fit, to be called the British Pharmacopœia, and the General Council shall cause to be altered, amended and re-published such Pharmacopœia as often as they shall deem it necessary."

The Medical Council Act, 1862, 25 & 26 Vict. c. 91, recited, *inter alia*, that different Pharmacopœias had hitherto been in use in England, Scotland and Ireland, and that the Pharmacopœia to be published by the General Council was intended to supersede these Pharmacopœias, and enacted that the British Pharmacopœia after publication should for all purposes be deemed to be substituted throughout Great Britain and Ireland for the several above-named Pharmacopœias, and any Act of Parliament, Order in Council, or custom relating to any such last-mentioned Pharmacopœias should be deemed after the publication of the British Pharmacopœia to refer to such Pharmacopœia.

As it was succinctly stated in the Preface to the

1898 Pharmacopœia that work was intended to afford to the members of the medical profession, and those engaged in the preparation of medicines throughout the British Empire, one uniform standard and guide whereby the nature and composition of substances to be used in medicine might be ascertained and determined. Further by Section 15 of the Pharmacy Act, 1858, 31 & 32 Vict. c. 121, it was enacted that: "Any person who shall . . . compound any medicine of the British Pharmacopœia except according to the formularies of the said Pharmacopœia, shall for every such offence be liable to pay a penalty or sum of Five Pounds."

It is somewhat curious to note, however, that the authority of the Pharmacopœia has only been tested in connection with prosecutions under an Act in which it is not named.

The Sale of Food and Drugs Act, 1875, laid down that "it is an offence to sell any article of food or any drug which is not of the nature, substance, and quality of the article demanded by the purchaser."

The general effect of the judgments in a series of cases brought under this Act is that when a compound medicine is demanded by a name which occurs in the Pharmacopœia, an article made in accordance with the Formula and answering the tests, if any, of the Pharmacopœia is presumed to be required, and that only very strong evidence to the contrary will suffice to rebut such presumption. (*Vide* White *v.* Bywater (L. R. (1887), 19 Q.B.D. 582. Dickins *v.* Randerson (L. R. (1901) 1 K.B. 437. Boots, Cash Chemists (Southern) Limited *v.* Cowling (1903) 67 J.P. 196).

What, however, will be the legal position of a pharmacist to whom is presented for dispensing a prescription dated on or after the first of January, 1915, and specifying a preparation, the name of which occurs both in the 1898 and 1914 Pharmacopœias?

The latter work will be authoritative, although only just published, for by a practice which differs essentially from that of other countries, the gazetting of the British Pharmacopœia as an official medicine book synchronises with its publication.

The positive ignorance of all concerned as to its contents being only modified by such information as they have been able to gather from the exhibition of, so to speak, chained copies in Oxford Street, and the comments and extracts made and abstracted by medical and pharmaceutical editors, working under the shadow of threatened penalties for possible breaches of copyright, it may be submitted with confidence that all prescribers will not early in the New Year be intimately conversant with the new book.

Now the contract between a pharmacist and his customer is an implied one, to the effect that he will make up the medicine required, according to the directions of the physician, translated by means of his technical knowledge as a skilled dispenser; but the uncertainty which may arise as to which Pharmacopœia the prescription refers to will increase the normally heavy burden of responsibility of the dispenser, and may, and, indeed will, involve serious risks. This will be evident by a consideration of some of the changes introduced by the new Pharmacopœia.

The Editor of this journal has already referred to tincture of strophanthus, a preparation which has had a somewhat varied history. Introduced into official medicine in the 1890 additions to the 1885 Pharmacopœia, its strength was then given as 1 in 20. Presumably this was found to be too strong, for in the Pharmacopœia of 1898 the strength was reduced to 1 in 40. Since that date a good deal of work has been done on the drug by pharmacologists, and in 1905, in a paper read before the British Pharmaceutical Conference at Brighton, Dr. W. E. Dixon recommended the physiological standardisation of the tincture, and stated that the official tincture would generally have to be diluted to bring it down to the proper standard.

The standard, as given by Dixon, was that quarter of a minim of the tincture should be sufficient to arrest the heart in systole of a frog, weighing 20 grammes, in about an hour.

Now I have evidence before me, accumulated during the last five years, that tried by this standard tinctures made in accordance with the 1898 Pharmacopœia proved in the majority of cases to be too strong.

It was, therefore, naturally to be supposed that, when a change was made, it would be by way of reducing the strength.

The new Pharmacopœia, however, has made the strength 1 in 10, or four times that of the 1898 Pharmacopœia, which, as shown above, has been generally found to be too strong. It is true that the dose is at the same time reduced from 5 to 15 minims to 2 to 5 minims, but this change, even if it be always remembered by prescribers, does not entirely meet the case.

Again, tincture of opium, or, as it is often called, "laudanum," is increased in strength from .75 per cent. to 1 per cent. of morphine. One result of this change is that the tincture becomes transferred from the second part of the poisons schedule to the first part, and therefore in future can only be retailed with the accompanying formalities of signing the Poisons Book.

This is doubtless a good thing, as it may be hoped that it will check improper use of the drug, but the increase of one-third in the strength must be very carefully noted by prescribers.

On the other hand, tincture of nux vomica is reduced to half its present strength, as is also tincture of colchicum, but the potency of tincture of aconite is doubled.

Tincture of belladonna will in future contain only 7-10ths of the proportion of mydriatic alkaloids contained in the tincture of the British Pharmacopœia, 1898.

With regard to tincture of iodine, in the 1885 Pharmacopœia this had a strength of 1 in 40 and there was also a liniment with a strength of approximately 1 in 10. In the 1898 Pharmacopœia, the tincture was left unchanged, but the name of the liniment was changed to that of "Strong Solution." In the new Pharmacopœia the "Strong Solution" again has its name altered, and is now called "Strong Tincture of Iodine," although it is not intended, of course, for internal use, whilst the present tincture is, in future, to be called "Weak Tincture of Iodine." It will become, therefore, rather a nice point as to what should be dispensed when tincture of iodine, without any qualifying adjective, is prescribed.

Amongst the injections, injection of cocaine and injection of morphine are both reduced to half strength. Mercury ointment is reduced to 3-5ths of its present strength. For the latter change, at least, there is doubtless good reason, for much trouble has been experienced concerning this article, as at present the official ointment is too strong for many purposes, for which it is properly required; whilst on the other hand, pharmacists have been subjected to penalties, under the sale of Food and Drugs Acts, for diluting it, although they have done this in the best interests of those they serve.

It is impossible in a short article to deal at all adequately with the new Pharmacopœia. Sufficient has perhaps been said to show the vital importance of its being studied, with particular care; but it may be added that, apart from these difficult points of practice, the tests and analytical methods generally show a very great advance, and should tend to raise the standard of quality and potency of medicines.

ENDOCARDITIS IN CHILDREN. (*a*)

By FLOYD M. CRANDALL, M.D.

It is not my purpose in this paper to present a systematic monograph on heart disease in children, but rather to record certain views reached after many years of observation.

In selecting the title, I hesitated between using the term "carditis" or "endocarditis," but decided upon the latter. I am well aware that in the graver forms of heart disease which come to autopsy the disease is never limited to the endocardium alone. The pericardium and the myocardium are also involved. This was the experience of Sturges twenty or more years ago, and has been the constant experience of pathologists since that time. It is undoubtedly true that a certain amount of degeneration of the fibres of the heart muscle occurs during the course of every acute febrile disease or intoxication. This is frequently mild in degree, but myocarditis with little or no valvular involvement may cause the death of the patient, as in diphtheria. In watching the course of these cases, it is difficult to believe that in some of the less severe types, which run a favourable course, any marked degree of myocarditis or pericarditis is present. It certainly seems that a poison like that of rheumatism circulating in the blood may so irritate the sensitive myocardium as to cause the primary and essential lesion in that membrane, rendering the designation of endocarditis proper. The probability of grave myocarditis, however, must never be forgotten. Examinations for its detection should be frequent and careful, for upon it, more than any other element, depends the prognosis and much of the treatment.

I have come to rely upon four symptoms as particularly suggestive of muscle involvement. The earliest to appear is irregular heart action or palpitation, and this is usually the most distinctive symptom. Syncope is characteristic of decided myocarditis, particularly in diphtheria. In addition to these two symptoms, cyanosis and precordial distress are very suggestive of muscle involvement. One or more of these symptoms in conjunction with physical signs warrants us in belief that in addition to the endocardial disease we have also muscle involvement. In the later stages the occurrence of cyanosis and œdema is of more grave significance in the child than in the adult. They indicate a grave type of carditis, certainly endocardial and myocardial, and perhaps pericardial as well. It is usually impossible in a young child to determine the condition of the heart muscle, unless an examination can be made during sleep as well as during waking hours.

In determining the condition of the heart muscle, a blood examination may give assistance in addition to the aid usually expected of it. Palpitation and shortness of breath are such frequent accompaniments of anæmia that it is helpful to ascertain the blood condition, and not always jump to the conclusion that the symptoms are wholly due to myocarditis. If the anæmia is found to be marked, the prognosis may not be so gloomy, for its relief may directly mitigate the symptoms.

A point of great interest to me has been the occasional rapidity of the development of the physical signs of endocarditis. I have heard a loud endocardial murmur fully developed in a closely watched case within eighteen hours. It is not always the fact that a soft indefinite murmur precedes the development of distinctive sounds. Recognition of this fact would sometimes have saved criticism of practitioners by others who have been brought into the case and I think should be remembered before strictures are passed. It is quite possible that a distinctive blowing murmur may be present to-day that was not present yesterday. It is possible that the advent of fever with increased heart's action may sometimes aid in the apparent rapid development of endocardial lesions. It is a common statement in text-books that the severity of the case is not in proportion to the amount of sound heard on auscultation. There is truth in this statement if the case is judged by the amount of sound alone. If the murmurs are judged as they should be in connection with other signs, then the statement is not wholly true. Other things being equal, I find it hard to feel, when studying a case, that a loud rasping murmur is not more serious than a soft blowing one. I do not, of course, minimise the gravity of those faint blowing murmurs with irregular and uncertain heart's action, which accompany certain cases of myocarditis with but slight endocardial involvement, but I certainly do not prefer a loud rasping murmur to a faint one.

The final course of cardiac cases is always of great moment and interest. The patients in which the disease begins before twelve years have a very important period before them. The physician who ignores the gravity of a cardiac murmur and lightly says that the child will grow out of it, is taking almost a criminal risk. It is quite true that during this period of change some children do materially change for the better. I have during the past year seen two such satisfactory cases—one a boy and one a girl. A murmur has been left, following an acute endocarditis and I had concluded that in neither case was it likely to disappear. Much to my satisfaction, however, the murmurs have disappeared and the hearts give evidence of being in normal condition. The myocardium, it is true, had in both cases not been apparently involved at any time and the compensation had been excellent.

Results like this, however, are not often to be expected and should never be relied upon. The unfortunate opposite in my experience has been more frequently the result. Several children at this trying period have done badly and succumbed even without repetition of the acute endocarditis. On the whole, I should say, when a murmur has been left and the myocardium has been in fairly good condition, children have gone through this critical period without material changes in the cardiac condition. If they go to eighteen or twenty with a reasonably good cardiac muscle, they have a very good chance of going through the next three decades without cardiac symptoms. When the degenerative changes begin to appear, however, in

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(*a*) *Archives of Pediatrics*, September, 1914.

later life, the individuals with impaired heart have not the chance possessed by normal subjects. They more readily succumb to acute disease and to arterial changes, and are not as apt to live to advanced age.

In general terms my experience leads me to agree with Dunn, that the earlier the primary endocarditis occurs the better is the ultimate prognosis, because of the more perfect adaptation of the child to the heart and the heart to the child. They grow up together and are more apt to adapt themselves to each other than they can do in later years.

In the matter of prognosis, I am not willing to agree with the proposition that the number of murmurs is not to be taken into consideration. The patient with a mitral regurgitant murmur alone, other things being equal, has a much better outlook than the one with a double mitral murmur, and vastly better than the one with an aortic murmur. An aortic lesion is a very dangerous thing in a child, but aortic insufficiency is fortunately rare in children. The human pump is like any other pump. A leak in a valve reduces its efficiency. If there is also obstruction to the flow of the fluid, the impairment is increased and two damaged valves are assuredly worse than one. This is a simple mechanical proposition which cannot be effaced by any amount of statistics. Two murmurs are more serious than one, and three are more serious than two. There is too much tendency in statistical papers to make out tables based on one element alone. We cannot safely do that in practice. It is true that a heart with three murmurs and a good muscle may be found acting better than a heart with one murmur and a poor muscle. Prognosis based on one element alone will lead to error, and tables based on one element alone will lead equally to error.

The evil effects of anæmia upon the child with cardiac disease can scarcely be overstated. It is a contributing factor to weakness and fatty degeneration of the heart muscle. If uncorrected it may be a factor in turning the scale against the child. This is true even of young children, and particularly true in the period after fourteen. The chlorotic type common to girls of that period should be watched for and should be vigorously combated by diet, moderate outdoor exercise and medication.

The sources of infection of acute rheumatism and the portals of entrance are still somewhat uncertain. The evidence against the tonsils, however, is very strong. The reasons for the removal of infected tonsils, therefore, in a rheumatic child, whether he have cardiac disease or not, are vastly greater than in any other constitutional type. The child with a cardiac lesion who is subject to tonsillitis should certainly have that dangerous portal of infection closed. In my experience, the type of tonsillitis marked by clear, white, pearly spots and a throat comparatively clean, has not been as serious as that type marked by a grayish exudate upon a soft, spongy-looking tonsil. Two of my patients a few years ago developed endocarditis in the same week with that type of throat. Cultures were taken primarily in the suspicion of diphtheria. No diphtheria bacilli were found, however, but quantities of streptococci. I have come to dread that soft, spongy type of throat with smeary exudate almost as much as an articular rheumatism.

The statement is so frequently made that quinsy is the type of sore throat most closely associated with rheumatism that there must be some truth in it. I have had in my practice many quinsy subjects and have watched them carefully, but can only say that I have been unable to demonstrate any relationship between quinsy and rheumatism, and certainly none between quinsy and heart disease.

The effect of endocarditis on the growth and development of a child has been a question of considerable interest to me. There are certain ones of the more grave cases, particularly those of decided rheumatic tendency with recurring attacks, which do not develop well. It has seemed to me, however, that the constitutional tendency of the child and its rheumatic involvement were often the factors more important than the heart lesions. I have seen child after child with distinctive blowing murmurs develop in a perfectly normal manner. I saw a little girl a few days ago who went through an acute endocarditis accompanying an inflamed ankle at six years, which left a loud, harsh murmur. She has done perfectly well, however, and began to menstruate at twelve years and five months. Now at thirteen years and four months the murmur is but slight; she is developed beyond the average girl of fourteen and is heavier and stronger than her twin brother, who is a perfectly sound boy. When the compensation is good there seems to be no reason why the child should not go on and develop in a normal manner.

The treatment of endocarditis divides itself into two very distinct stages—that of the acute and that of the chronic condition. I have become more and more impressed as the years have passed with the importance of absolute rest during the earlier stages. By rest I mean literally absolute rest in bed, that the heart may have as little labour to perform as possible. We treat a broken bone with absolute quiet and an inflamed eye by removal from the light. We can even put the ulcerated stomach at rest. With the heart, however, the rest must be comparative, but it should be as near perfect rest as we are able to attain. It is not sufficient to keep the child in bed during the febrile stage alone. Six weeks is the shortest time that any endocardial case can be safely permitted to leave the bed, and it is very rare that it is safe within two months. In fact, I would arbitrarily place the time at two months and beyond that be guided by symptoms. Two symptoms are of especial value in determining this important question of leaving the bed—namely, rapidity and regularity of the heart's action. I do not consent to the child's leaving the bed, whether it be six weeks or six months, until his pulse is well below 100, and is regular. Even then if it becomes irregular or unduly rapid upon moderate exertion I insist upon continuing the quiet. The rapidity on exertion, however, must be looked upon with some judgment. A child who has been several weeks in bed is certain to show rather more rapidity of pulse than one who has been leading an active life, and it is often a question how much importance should be attached to increased frequency of the pulse in the first efforts, if it continue regular. A child should be allowed to sit up in bed and engage in pastimes which will use the arms and involve some physical effort before he is allowed to actually leave the bed.

The management of the acute stage in ordinary cases has been with me a comparatively simple matter. The education of the family has often been more difficult than the treatment of the patient. But family training is necessary. In this particular I have frequently had the experience, especially in the chronic stages, that Dr. Dunn speaks about: the families are prone to go to one extreme or the other. They either ignore your advice and look upon the doctor as an alarmist, or they restrict the child unduly in safe and desirable activity.

After the child is out of bed with a murmur left behind and the chronic stage entered upon, many difficult problems present themselves. The management then often settles itself to one of judgment alone. Text-books give but little help as a rule, and the questions that arise must be decided largely by experience and reason. I am more and more convinced that to maintain the restrictive treatment too rigidly and too long after the preliminary stages is an error. Too much confinement to the house and restriction of muscular exercise may defeat its own object. We are now in a stage where nutrition should be maintained at its highest possible point; where muscular development should be encouraged, and the child prepared to perform its ordinary duties in life. The management of girls is usually easier in this regard than that of boys. Skipping the rope with little girls; dancing, lawn tennis and basket ball with the older ones are the exercises which are most likely to be productive of harm. With the boys who develop well and grow strong and athletic, the question of athletic games is a very difficult one, and I do not feel that general rules can be given. Here, as in the earlier stages, the rate and frequency of the pulse offers us the best guide, provided the patient is in a reasonably good physical condition. Action of the heart under exercise is the most reliable guide. If it becomes irregular or unduly rapid, there should be no hesitation in forbidding the more strenuous exercises.

A period of daily rest is of great importance to the cardiac child. This can usually be enforced more readily with girls than with boys. Even a half-hour of relaxation during the day, whether the patient can sleep or not, is of great value. If that can be secured, we may feel warranted in granting considerably more leeway in the matter of actual exercise.

After the acute stages of endocarditis are passed, we have to deal with a condition rather than a disease. In the management of this condition, arbitrary rules may do harm rather than good. In few other conditions is it more essential that we study the case and treat the patient rather than the disease.

THE RAPID ARREST OF ACUTE INFLAMMATION BY DIELECTRIC TREATMENT.

THE ELECTRO-PATHOLOGY OF ACUTE INFLAMMATION: A PLEA FOR ITS ADOPTION IN THE PRESENT WAR.

By J. HORNE WILSON, M.D.,

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In this time of war when a large number of men on both Services are suffering from the risks attendant on many forms of acute inflammation resulting from wounds, burns, scalds and gangrene and many also placed *hors de combat* by acute pneumonia and other acute inflammatory conditions, I am anxious to take this opportunity of bringing before the medical profession a simple, safe and rapid method of treatment, experience having shown its effect on acute local inflammation to be most striking, with the result that heat, pain, redness and swelling disappear in a few hours and the body temperature falls to within safe limits in a few hours.

This dielectric treatment is the outcome of scientific research into the electro-pathology of acute inflammation, and to put it shortly it has been found that in such conditions there is an escape of neuro-electricity or nerve energy (trophic influence if you will) locally owing to a breakdown of the local insulation resistance of the nerves, and the resulting treatment consists of applying externally or internally a non-conducting fluid which will penetrate and insulate the nerves, thus stopping the leak and by restoring the trophic influence to the cells allows them to resume their normal metabolic action.

It is interesting to note that the application of the theoretical views in actual practice has been attended by such striking results. It is otherwise quite impossible to explain the rapid action of a dielectric in such acute conditions.

For fuller information on the electrical condition of the body in health and disease and also the electrical condition of fruits, vegetables and plants I would refer to a paper in *The Practitioner*, June, 1914, and to the *Medical Times*, July 25th, and to an article dealing with the "Electro-pathology of Acute Inflammation" in the *Therapist*, July 15th.

This research was carried out by a very sensitive Kelvin astatic galvanometer and it has been found that the human body generates its own neuro-electricity (nerve energy) in the brain, and this current is found to be constant in the same individual in health, falling considerably, however, during sleep. It is not possible to drain the body of this neuro-electricity by placing it in contact with an earth plate of infinitesimal resistance or to bring it down to the potential of the earth.

It is found also to be constant when the body is absolutely motionless and when the body is well beyond the influence of induction, and it is this latter factor which has led to so much unreliable data in the past.

Such research work must not be carried out within about a mile of any electric current of high potential.

If this current is being constantly generated in the body it must as constantly be given off, otherwise the electrical pressure would become unbearable.

The insulator of the body is the skin, which has not a very high resistance, so that there is around every living person a magneto-electrical field.

The nerves are insulated by their sheaths only sufficiently to maintain in or on them nerve energy at a certain pressure and the ganglia are probably a series of storage cells or condensers.

Sign, electro-motive force and current vary in different individuals, resembling thus a galvanic cell whose terminals E.M.F. and internal resistance are unknown until tested and ascertained.

It has been found that disease does one of at least four things:—

1. It alters the resistance of one or more conductors in the part affected.
2. It affects the electromotive force locally or generally.
3. It alters the skin resistance locally or generally.
4. It affects insulation resistance locally.

In each case there is a "fault" which can be localised, its area defined and its character determined.

It has been found that where there is local inflammation, superficial or deep, there is an escape of the nerve energy, due to a breakdown of the local insulation resistance of the nerves, which can readily be detected by the marked rapidity of the deflection obtained by the galvanometer.

All normal metabolic action is dependent on the proper supply of this neuro-electricity or trophic influence conveyed to every cell, even the nerves themselves are supplied with it by means of the "nervi nervorum."

Very few works on physiology take any serious notice of the nature of this trophic influence on cell metabolism, being content merely with mentioning one or two outstanding cases of inflammation resulting from the removal of this trophic influence, as in section of the fifth nerve causing corneal inflammation when the eye is exposed to dust, for it does not happen if the eye is kept closed or perhaps the fact is mentioned that section of the pneumogastric causes vagus pneumonia and gangrene or again the fact that acute bedsores follow certain spinal lesions.

Then there is the case of herpes zoster which as the result of a large number of *post-mortem* examinations there has been shown in every case acute inflammatory exudations with small round cells in the corresponding root ganglia and it is not to be wondered at, therefore, that local treatment of the herpetic rash by anæsthetic dusting powders has little effect on the course of the disease.

In such cases the arrest of the inflammation over the spine ought to be accomplished by means of dielectric treatment.

Now why should the cutting off of trophic influence result in acute inflammation? It is not loss of sensation *per se* that is the cause, for, as in the case of the eye, this merely allows the foreign substance to remain for a sufficient length of time to be an exciting cause.

Cell metabolism breaks down if this influence is interfered with, as is very readily seen by applying a very small electric current of, say, one volt to the skin for any length of time. The patient is quite unable to feel this current, but it alters the ionic condition of the cells and normal metabolic action becomes arrested and the tissues become inflamed and ulcerate leaving a troublesome sore which is particularly slow in healing.

Now what is the nature of this trophic influence?

It was of course formerly thought that cell metabolism was the result of simple osmotic action such as occurs through the membrane of a dialyser or it was explained as the result of surface tension between the plasma within the cell and the fluid that lay without it, and of course the factor of filtration, due to difference of mechanical pressure, plays a certain part, but most physiologists at the present time confess that there must be some other vital force at work because it acts often so as to interfere with or oppose the action of osmosis, etc.

This is discussed in a recent work (*a*) by Dr. Johnstone.

In dealing with this vital impetus the author draws two main conclusions :—(1) that physiology encourages no notions as to a "vital principle" or force or form of energy peculiar to the organism; and (2) that although physiological analysis resolves the metabolism of the plant and animal body into physico-chemical reactions, yet the direction taken by these is not that taken by corresponding reactions occurring in inorganic materials. From these two main conclusions, he adds, we have therefore to construct a conception of the organism which shall be other than that of a physico-chemical mechanism.

Living cells do not therefore act like the dead membrane of a dialyser; they have selective action, picking out some substances while rejecting others. The physical or chemical properties of living matter have not been brought into line with the known chemical and physical processes which operate in the inorganic world, though Professor Bose (*a*) goes a long way in uniting the organic with the inorganic.

This new so-called vital factor (vital in the sense that it can only act where there is life) is therefore a condition of electrical attraction dependent on the electrical condition of all living things.

Recent research by Professor Czapek (*b*) has shown that every cell has a plasmatic membrane or selecting layer, and viewed in the light of ionic reactions the transference of the substances which takes place is governed by the electrical condition of the ionic groups on the two sides of the selecting layer.

The dissolved substances in the body do not pass into the living cell plasma except in the condition of ions; one cannot, for example, find a trace of iron or potassium in the living cell by the most delicate tests. Strong acids and alkalies when diluted down to .001 of a gramme molecule in a litre of water are entirely broken up into ions, so that the reactions in metabolic activity may be considered as taking place between ions.

Cell protoplasm is always in the form of an emulsion colloid along with crystalloids and as the salts in the circulation are always highly ionised (from their state of dilution) practically it is only the ions or groups of ions which are absorbed.

The reaction between ions always takes place and is complete in an immeasurably short space of time, and this is also the case whenever the metabolic reaction is between ions alone, although the reactions necessitated by the colloidal condition of part of the cell plasma take a relatively longer time.

The speed depends on the part played by the crystalloids during the reaction.

It is difficult for the ordinary mind to realise the rapidity of this change. Take, for example, the mammary gland: on the one side of the epithelial cell there is blood and on the other an entirely different substance, milk, and the depth of the area in which this rapid change takes place is microscopic.

In many cases there is strong evidence to show that the ions do not act singly, but in groups, and the formation of complex ions is of great importance in metabolism, but living cells can even form new ions from non-ionic material, and thus under the influence of a sufficient stimulus become regenerated with all their functions restored.

So intimate is the connection between electricity and the metabolic changes which occur in a fully ionised cell that it has actually been found possible to start the process of cell division in the ovum of a sea urchin by a simple electro-chemical stimulus.

The ions or groups or ions in the protoplasmic membrane determine the character of the material

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(*a*) "The Philosophy of Biology," by J. Johnstone, D.Sc.

(*a*) "Comparative Electro-Physiology," Professor J. C. Bose.

(*b*) "Biochemie der Pflanzen," Professor F. Czapek.

which shall be absorbed and also of that which shall be passed out from within the cell. These interchanges can only take place when the sum of the electrical charges on the two sides are of opposite electrical condition so that they attract each other.

The disappearance of ions within the cell as the result of metabolic activity tends always to keep the potential lower on the inner side of the selecting layer.

This may be the cause of the continual difference of sign, since anabolic reactions fix the free ions again into groups, and so the free ions, which are absolutely necessary for the working of the cell, have continually to be replaced or supplied from the ionised material in the blood.

In some cases it is possible that the re-arrangement of the ionic grouping necessitated by the metabolism, may result in partial atomic disintegration and the liberation of free ions within the cell itself.

Along with metabolism there is always inseparably associated a transformation of energy which has as a result the activities of the organism, more especially motion, heat, light and electricity.

The thermic reactions which occur in all normal metabolic reactions are the result of alterations in the molecular structure and the temperature generated is the difference between the exo- and endothermic results of the change, the temperature rising with the excess of the former over the latter.

This is a definite amount which can be calculated when the exact nature of the change is known ; when, however, the cell is generating ions, its reactions are atomic and not molecular, as the ions can be obtained only at the expense of atomic disintegration, when the heat liberated is enormously greater than that arising from molecular change, even if the results are all exothermic.

It is found to be roughly about a million times greater than would be generated by the combustion of the same weight of coal, a source of energy within the organism only recently discovered as the result of the metabolic activities of the cell and which when fully explored may yield surprising results.

Each cell therefore forms a separate laboratory in which continuous metabolic changes are occurring. In it there is a minor consumption of organic matter which exhausts the oxygen conveyed in the blood by the red cells allowing them to be capable of absorbing the products of combustion.

This combustion in the cell warms the cell contents independently of the heat supplied by the blood. Now if for any reason, such as an injury or the effect of toxins on the nerves or the selecting layer, this latter becomes paralysed, the warmed cell contents are not removed, the temperature of the cell rises and causes local pyrexia. This is apt to spread and become cumulative and the temperature of the blood in the capillaries at this point is also raised, which interferes with the action of the red corpuscles and renders also phagocytosis more sluggish, so that the cell contents become more poisoned, an action which also becomes cumulative. This rise of temperature also renders micro-organisms more active and their propagation more rapid.

But there is also another very important effect of this local pyrexia which in the past has been overlooked.

I have said that all normal metabolic action is dependent on the proper supply of neuro-electricity conveyed to the cells and as the nerves are only insulated sufficiently to retain the current up to a certain pressure or potential, the effect of this local pyrexia is at once to cause an increased resistance in the conductive capacity of the nerves affected; but also, and this is of still greater importance, this local rise of temperature causes a decrease of insulation resistance in the nerve sheath, allowing thus an escape or leak of the natural nerve currents, with the result that the cells do not receive the necessary supply of neuro-electricity and normal metabolic action cannot therefore take place.

If any cell or group of cells is isolated from nervous influence and control, the whole of its activities cease in a short time; not immediately, however, for each cell always contains a store of potential energy which by its action is changed into the kinetic form. This is especially the case where the isolated region is well supplied with ganglia and can draw upon these when the main supply is cut off.

From the standpoint of an electrician, temperature means a break down of local insulation resistance, or in other words local pyrexia is a shunt of varying resistance.

Electrical research has shown that this escape of neuro-electricity can be readily detected by a sensitive galvanometer and also the rapidity of the deflection on the scale is proportionate to the severity of the inflammation.

The first step in dealing with acute local inflammation therefore should be to stop this leak or escape of neuro-electricity by the action of a suitable dielectric or non-conducting fluid, which, by its osmotic action is capable of penetrating the tissues, thus coating all the nerve sheaths with a very fine insulating layer, thus stopping the leak and therefore allowing the cells to again receive their proper supply of nerve energy.

To be successful, however, this must be done before suppuration or gangrene has taken place, as it is evident that the restoration of nerve influence cannot have any effect on cells that are dead or that have become separated.

In dealing with acute and chronic inflammation on these lines, what is required is a harmless, insoluble and indecomposable fluid of very great penetrative power and high electrical resistance (infinity at 60 deg. F.).

Another important point is its specific gravity, not only as regards its absorption of oxygen, both by selection and as a vehicle, but also as regards the influence of specific gravity on osmosis. In ordinary cases a specific gravity of .885 is desirable, but when it is intended to penetrate through fluids as in pleurisy, pericarditis with effusion and pleuro-pneumonia, etc., a specific gravity of 1.0 is necessary.

It is also of the greatest importance that it should be entirely free from ions so as to avoid forming any combination with the ions in the cells, hence absolute deionisation is necessary, otherwise any dielectric would be entirely unreliable, and to avoid it becoming re-ionised it should not be exposed to sunlight or ultra-violet rays.

It must be kept in mind also, that the least trace of acid, oxide of iron or other and similar impurities may not only impair but utterly destroy its action.

One other important point is that the temperature of dielectric should be kept as low as possible, for the resistance of all dielectrics rapidly decreases with a rise in temperature.

A liquid hydro-carbon, such as liquid paraffin, prepared to meet these necessary requirements, makes a very efficient dielectric and its effect on local inflammation, both superficial and deep, is most striking, the almost invariable result being that heat, pain, redness and swelling disappear in a few hours and the body temperature rapidly falls to normal.

From considerable experience one can confidently assert that within two or three hours of its application in cases of acute local inflammation with high temperature the patient will be practically out of danger.

Method of Application.

It is best applied on thick, absorbent, non-medicated cotton wool which is thoroughly soaked in the fluid.

In the case of the dielectric with sp. gr. .885, no shaking is required, but in the case of the dielectric emulsion, sp. gr. 1.0, the liquid in the bottle should be well shaken before pouring out as it is in the form of a fine emulsion.

The cotton wool must be saturated with the dielectric and placed over the inflamed area so as to completely cover it. On no account must it be allowed to come in contact with any metallic substance or solution so that dry, clean, stoneware basins must be used in which to soak the pads.

It is then covered over with a sheet of oil silk considerably larger than the pad so as to avoid soiling of the clothes as far as possible and is kept in place by a light bandage.

In very acute conditions the dielectric will act more rapidly if the bottle is placed in crushed ice for ten minutes before applying it.

Where a large area has to be covered as in double pneumonia, the easiest method is to soak a pneumonia jacket such as the "Zudor" in the dielectric.

Wounds, Burns, Scalds.

It has been found when a wound is treated by the dielectric without any antiseptic precautions, beyond the wiping away of visible foreign matter, that no inflammation takes place and there is very rapid relief from pain and very rapid healing.

Its application to severe burns and scalds, after the removal of fluid from the blisters, will remove all pain in a few seconds and will therefore reduce to a minimum all danger from shock.

Its early application to wounds in the battlefield will also in a great measure prevent tetanus from gaining a foothold in the tissues and unless there is severe destruction of the tissues, its early application will be a potent factor in the prevention of gangrene.

In wounds which already show signs of acute inflammation prior to suppuration the application of the dielectric will in an hour or two remove all pain, redness and induration, the wound healing very rapidly.

In wounds which are already suppurating, provided the pus is not pent up and there are no signs of general septicæmia, the pus formation will rapidly cease.

I know of no antiseptic dressing which will bring about such a rapid arrest of all signs of acute inflammation.

It is my earnest wish that those responsible for the treatment of the wounded in this war will take advantage of this simple and rapid method of preventing wounds becoming a source of danger.

A large number of cases of acute pneumonia (double and single) and of acute broncho-pneumonia and acute bronchitis have now been treated by this method and in every case the temperature has been reduced to within safe limits in a few hours with rapid relief of symptoms and rapid recovery, but I would especially emphasise one point and that is, that where there is effusion, as in pleurisy, pleuro-pneumonia, pericarditis with effusion, etc., the employment of the dielectric of higher specific gravity is absolutely necessary if satisfactory results are to be obtained.

In acute uncomplicated cases of appendicitis, its application over the lower right half of the front of the abdomen and the taking by the mouth at the commencement of the attack of two ounces of the dielectric, will rapidly remove all pain and signs of inflammation and bring the temperature in the course of a few hours to normal.

When, however, an operation is unavoidable, as in abscess formation, gangrene or perforation, its prompt application will prevent further spreading of the inflammation and place the patient in a far better condition for operation.

I have seen many cases of acute cellulitis, tonsillitis, acute laryngitis and acutely inflamed piles, where the symptoms have disappeared over night and also cases of erysipelas with high temperature have obtained rapid relief from pain with a rapid fall of the temperature in a few hours.

In acutely inflamed rheumatic joints and in inflamed joints due to traumatism, it has given very satisfactory results and in rheumatoid arthritis, especially in those cases not due to some septic focus as the source of the infection, the application of the dielectric emulsion of the higher specific gravity has given very gratifying results in these somewhat difficult cases.

As regards pulmonary tuberculosis there has not yet elapsed sufficient time to form an absolute opinion, but I am convinced that the cases that do not show a septic blood picture are doing very well, as also are the cases of tuberculous joints and lupus. In such cases it is advisable to apply the dielectric day and night or in some cases only at night, renewing the pads once a week.

I am very much impressed with the fact that the more acute the inflammation the more prompt is the result.

The method is so simple in its application and so free from danger or unpleasant after effects that its adoption by the medical profession, and particularly the general practitioner, will result in the having at hand a safe, reliable and sure remedy for the arrest of acute inflammation which may and ought to be applied at the earliest possible moment.

OPERATING THEATRES.

ST. MARK'S HOSPITAL.

Operation for Ovarian Dermoid Cyst with Twisted Pedicle, which Simulated Appendicitis.—Mr. Aslett Baldwin operated on a woman, æt. about 30. She was known to have had an abdominal tumour "for a long time," but as it had caused no inconvenience she had taken no notice of it. For several days she had had vague pains in the abdomen, which she had put down to indigestion. On the previous day to operation she had vomited, and had been put to bed. On the morning of the day of operation the pain had become much worse; the abdomen was tender all over, but the tenderness was much more marked on the right side. There was an obvious abdominal tumour which reached up to the umbilicus. Her temperature was over 100°, pulse 140, and the tongue dry and somewhat brown in colour. Under the anæsthetic it was ascertained by vaginal examination that the tumour was apparently unconnected with the uterus.

The abdomen was opened by McBurney's gridiron incision. The appendix could not be found, but the tumour could be felt with the finger, and on directing a strong light into the wound it was seen to be quite black. Another incision was then made over the lower part of the right rectus muscle, which was turned outwards, and the abdomen again opened. The incision had to be continued upwards for several inches before the tumour could be delivered. The tumour proved to be connected with the right ovary and was very deeply congested; it was the size of two cocoanuts, and its pedicle was rotated eight complete turns. The pedicle was untwisted and ligatured and the tumour removed. The stump of the pedicle was buried in the broad ligament by sutures to prevent adhesions. The left ovary was then examined and found to be occupied by a similar tumour the size of a small fist; this also was removed. The whole of the intestines appeared to be injected, and the coils that had been in contact with the large tumour were intensely inflamed. The appendix was examined, but beyond taking part in the general inflammation present there was nothing abnormal about it; it was therefore not removed. The abdomen was filled with normal saline solution and closed.

Mr. Baldwin said that the doctor who had asked him to see the patient had considered the urgent symptoms to be due to appendicitis, and the case certainly closely simulated that disease. The abdominal pains which started several days previously were evidently due to the rotation of the larger tumour on its pedicle. The general abdominal tenderness was due to early peritonitis. The pain and tenderness were most acute on the right owing to the large tumour being in that situation, and to the intestinal coils which were in contact with it being more acutely inflamed than anywhere else. He thought there was considerable risk of intestinal obstruction following the operation, owing to the formation of adhesions, and gave instructions that the bowels should be kept freely moved. Pituitary extract was ordered to be given every four hours for four doses, and with it 100 to the grain of salicylate of eserine. These drugs were given to promote intestinal peristalsis and so prevent the formation of adhesions. The saline solution was placed in the abdomen for the same purpose. Sterilised liquid paraffin, he said, would have been preferred, but it was not available. Daily aperients were prescribed by the mouth to keep up the intestinal movements. On examination of the large tumour it was found to be divided into two compartments: one contained a brownish fluid, in which were floating vast numbers of cholesterin crystals, which had the appearance of powdered gold; these were due to an old hæmorrhage into the cyst. The other half of the tumour was filled with sebaceous material in which were numerous hairs, each about 5 in. long. On dissecting a hard solid portion of the tumour, a largish piece of bone was found and about half a dozen well-formed teeth. Mr. Baldwin pointed out that these ovarian dermoid cysts are of great clinical and pathological interest. They are frequently bilateral, so that when one has been removed the other ovary should always be examined, or the patients will often have to submit to a second operation. They have a particular tendency to twist on their pedicles, producing acute pain, faintness, and symptoms which may be taken for a considerable number of acute abdominal conditions; but he thought a mistake can generally be avoided by carefully going into the history: the patient will generally have had an abdominal tumour for a considerable time, and the onset of the pain and other symptoms is generally associated with some sudden movement on the part of the patient, and if the case is seen early before the onset of peritonitis due to necrosis of the cyst the temperature will not be raised, although the pulse will be increased in frequency. The patients may be faint, the bowels may refuse to act, there may be vomiting, there will be pain and localised tenderness, but not the distension and rigidity of peritonitis or perforation.

The patient made an uninterrupted recovery, and has not had any intestinal troubles since the operation.

TRANSACTIONS OF SOCIETIES.

ROYAL SOCIETY OF MEDICINE.

SECTION OF OPHTHALMOLOGY.

Meeting held Wednesday, December 2nd, 1914.

The President, Mr. Priestley Smith, F.R.C.S., in the Chair.

Miss Rosa Ford showed a case in which an eyelash pierced the lid border backwards.

Sir Anderson Critchett showed a patient with small optical iridectomies in a case of lamellar cataract. He described the operation, which was initiated by his father fifty years ago, and narrated cases so treated in which the result was very permanent. Mr. W. H. Jessop spoke favourably of the procedure, which he had himself carried out with great success, in adults as well as in children. In one case, operated upon 22 years ago, the result was as good to-day as at the time.

Dr. Angus MacGillivray (Dundee) said he had done the operation described several times. The results by removal of the lens were not as satisfactory in lamellar as in other forms of cataract.

Mr. Leslie Paton showed a case which he regarded as Mikulicz's disease, and gave his reasons for the view.

Col. R. H. Elliot referred to a case of the disease which he published in *The Ophthalmoscope*, that of a Hindu woman, æt. 40, in whom the lacrymal glands on both sides bulged like short horns, and the accessory portions of these glands projected into the conjunctival sac. The parotid, sublingual, and submaxillary glands showed fulness. Removal of the lacrymal glands not only improved the appearance, but was followed by subsidence of the other glands. The tissues removed presented a close resemblance to the appearance of round-celled sarcomata.

Mr. Robinson exhibited a case of irido-cyclitis, and Mr. Eason one of bilateral temporal hemianopis, to illustrate the importance of taking the fields of vision in every case of optic atrophy. The patient, though he had seen many ophthalmic surgeons, became so blind that he had to be led about. His fields had not then been tested. He could make out moving objects and lights on the nasal side only. The onset of blindness within six months was unlike the history of the optic atrophy of tabes, and Mr. Eason thought he might have pituitary tumour. Within a month of taking thyroid he got remarkable improvement of vision. He still took the extract, for if he went long without it he noticed a relapse. The sella turcica was somewhat enlarged.

Mr. Holmes Spicer showed a case with angeioid streaks.

The President made a sympathetic reference to the death, on the battlefield, of Mr. Angus McNab, an active member of the Section, and proposed a resolution of sympathy with his family, which was passed. The Section then proceeded to the discussion of the subject of the

NECESSITY FOR AN EXACT DEFINITION OF BLINDNESS.

Mr. **Harold B. Grimsdale**, in opening the debate, stated that the importance of defining, if possible, the condition of blindness had long exercised the minds of those concerned in the teaching and maintenance of the blind, and the recent awakening of public interest in the question made it all the more urgent to clear away doubt. On the recently appointed Committee on the subject, he was the sole representative of ophthalmic surgery; he had therefore invited this Section of the Royal Society of Medicine to try and arrive at something like unanimity on the question. Many members of the profession whom he had asked found it impossible to define the status of a blind child otherwise than was done in the Act of 1893—namely, that for educational purposes a child shall be considered blind who is too blind to read the ordinary school books. Yet all children who did not come into this definition were not fit for the ordinary school; for instance, subjects of high myopia. It was desirable to have some rule for evaluation, as a guide, in each case. Many factors must be taken into account, and these concerned both the state of the patient and his employment. Both central acuity and the state of the peripheral vision must be considered, as well as the relative value of the two eyes and the presence or absence of binocular vision. For certain employments a greater acuity was needed than for others. Those having no perception of light were but a small proportion of those ranked among the blind, while among children the proportion was still smaller. Among adults the blindness from optic nerve atrophy and glaucoma led to a preponderance over children. In a blind school of 68 children, 8 had no perception of light. In Boston, Mass., of 2,021 eye patients, .6 per cent. were totally blind, 7.7 per cent. "practically" blind, with a vision less than 6/60 of normal. These figures were not a guide, because totally blind persons would not seek relief. The blind persons in the United Kingdom number about 27,000, according to the census, but these could not be accurate. The ratio of the totally blind to the economically blind was about 1 to 9. The causes of economic blindness in children differed considerably from those in the adult. In the former, the chief trouble was loss of central acuity from corneal conditions, while in adults disease of the optic nerve, with contraction of the visual field, operated chiefly. There was evidently a tendency to make the standard of vision too high, and thus throw a large number of children into the "blind" class. One reason was that a child with bad sight demanded more individual attention from his teachers than the others, and so constituted a drag on the class as a whole. This was a stimulus to put such child into a special school. This might ensure his education being better looked after for the time, but once labelled "blind" he was liable to be drafted into a blind workshop. The co-education of the blind and the seeing was one of the most interesting experiments which had been conducted. The blind child was first started in a special school until he had mastered the elements of Braille writing and reading; then he took his place among sighted children in the universal school, and often competed successfully with normal children. The capacity to read separate letters was a very different matter from being able to read words. From experiments he found that the "near" acuity, as measured by reading words, was often more than twice the distant acuity measured on single letters. Often so-called blind children tried to read Braille by sight in preference to by touch. He contended that between the "blind" school and the normal school there should be a third school for children who had such visual defect that they could not be taught by the aid of the blackboard. His suggestion was that a distant acuity of 6/60 should be taken as the highest limit of vision for a blind school schild. Those whose vision was better than 6/24, unless otherwise recommended by a medical man, he would send to an ordinary school. All special schools should be inspected at least once a year, and the vision of each child tested and recorded. Among the blind there would always be two classes—those who could not see at all or scarcely so, and those who could distinguish large objects, and so could guide themselves by their eyes in unfamiliar surroundings. Given a good field an acuity of well below 3/60 enabled a man to move freely in the outside world; hence he regarded 6/60 as too high a standard below which a man should be regarded as practically blind. Mr. Grimsdale then dealt with the question in relation to various trades, and in conclusion suggested the appointment of a sub-committee to deal with the question in all its bearings. It was undesirable that a Bill on the subject should pass through Parliament without any reference to the opinion of that Section of the Royal Society of Medicine, for in that case most difficult questions would be left to the decision of absolutely unqualified amateurs.

Mr. **Rockcliffe** said that for many years he had advocated some definition of blindness. The Local Government Board defined blindness as "Too blind, in the opinion of the Local Government Board, to perform work for which eyesight is ordinarily required." Others expressed it as "Blind for the practial purposes of life." During thirty years he had examined and admitted into a blind school large numbers, and his decisions had not been questioned. He divided cases into (*a*) blind; (*b*) partially blind. The latter were those who were able to differentiate fingers at a greater distance than three feet. There should be a clear distinction drawn between capacity for ordinary school education, and for technical education. A good, broad distinction was: Those who could count fingers at three feet and those who could not. There should be a clear decision as to who should be participants in pensions for the blind.

Dr. **Angus MacGillivray** (Dundee) said that for industrial purposes so-called blind people could be divided into three classes: (1) Totally blind, those who had no perception of light; (2) practically blind, those possessing perception of light, but unable to take part in industrial occupations owing to marked impairment of vision; (3) the partially blind, whose defect prevented them obtaining employment in ordinary sighted workshops, their vision being such as to disqualify them from entrance to a blind institution. Thirty per cent. of the inmates of blind institutions belonged to the category partially blind. He discussed the case of children, and the general question in relation to occupations.

Mr. **N. Bishop Harman** contended that there was only one exact definition of blindness, the dictionary one—"want of sight." But the term was used to include many varieties of partial blindness, and for those a definition was sought. Vision was a complex act: acuity, field, mobility, mentality, and effects of difference of lighting, habit and custom, all took a share in the sensation. It was not possible by any sufficiently simple definition to gather up possible varieties, any one of which might constitute partial blindness of serious order. Any definition must be related to the facts of life, must have reference to the person's capacity for work. If it could be certified that he was incapacitated from engaging in profitable labour by reason of his defect, his was a state of blindness. Any attempt to pass a definition of blindness drawn in professional terms to operate through the legislature was, he contended, doomed to failure, and was liable to be altered out of recognition. The definition in the Elementary Education Act, "Inability to read the ordinary school books used by children," was worthy the judgment of Solomon, for it defined blindness in terms of life. He pointed out the parallelism of the case of mental defectives, in which also reference was to life. He advocated a certification of blindness by two independent and duly approved medical men, who should be required to state their opinion, and the facts upon which that opinion was based; such opinion being subject to the scrutiny of the medical officer of the proper authority.

Mr. **Richardson Cross** (Bristol) thought the Legislature was rightly attacking this question. If a child's sight was such that it could not attend the ordinary school, some other arrangement for its education must be made. There were blind schools for those nearly blind, and intermediary schools for myopes. Anything brought forward, to deal with the infirmity in adults would not influence the good work being done for the children. Ophthalmic surgeons should agree among themselves as to a proper definition of a blind person. He thought it would be unsound to take the view that the layman was unable to judge on this matter. He thought the Registrar would accept two classes. One would embrace those who had no more than a perception of light; the other either Snellen's types, or finger-counting, the latter for preference. Anyone who could not count fingers at a greater distance than a yard should be regarded as practically blind. In order to be practical, he thought that at first there should be some sacrifice of scientific precision; this could perhaps be arrived at later.

Mr. W. T. Holmes Spicer contended that the persons to decide this question should be expert ophthalmologists, not lay members of a County Council. Any rules arrived at should be for the guidance of expert examiners.

The President pointed out how well qualified this Section was for giving expert advice on such a matter, which was of the first importance.

ROYAL ACADEMY OF MEDICINE IN IRELAND.

SECTION OF SURGERY.

Meeting held Friday, November 13th, 1914.

The President, Mr. F. Conway Dwyer, M.D., F.R.C.S.I., in the Chair.

The President read an address on "The Treatment of Perforating Gastric and Duodenal Ulcers." He stated that he had selected this subject as he had recently under his care in hospital and in private practice several cases of this sort. He pointed out that for many years he had given up the use of lavage, which he believed to be extremely harmful and responsible for many untoward results. He removed the septic fluid with large swabs, and relied on pelvic drains for getting rid of any fluid left behind. He further stated that although formerly he was of opinion that gastro-enterostomy should be done, if the patient's condition permitted it, in the cases detailed he had performed it only in one case, and then only because the perforation was so large and the edges so friable that when the rent was sewn up he feared the lumen of the bowel was too much narrowed.

Details were then given of 12 cases which had been under his care during the past 14 months. Eight made a complete recovery, three did not survive operation more than a few days, and one died a fortnight after operation from pneumonia.

LIVING EXHIBITS.

Mr. H. Stokes showed a case of regeneration of ruptured sciatic nerve. The case was one of arthritis of the hip-joint accompanied by intense pain. Operation was performed for excision of the hip-joint, in the course of which the sciatic nerve was accidentally ruptured. The injury to the nerve was not discovered for two or three weeks after operation. Two and a half years had elapsed since the operation, and the patient was shown in order to demonstrate the amount of regeneration that had taken place. The suturing of the nerve was done about three weeks after the excision. The small loss of sensation now present in the case was remarkable.

Captain W. C. Stevenson showed some cases treated by radium emanation needles. The first patient was suffering from a malignant polypus, which was removed by Mr. Graham about the end of May last. It subsequently grew again, and the whole of the anterior wall of the antrum had to be removed, but notwithstanding this the tumour began to grow again. The patient came under Captain Stevenson's care in the end of June with a large gland on one side and a smaller one on the other, accompanied by considerable proptosis of the eye. He inserted six needles into the gland, and two or three days afterwards six more needles were put in, and left in for about 24 hours. After about six weeks the tumour got smaller and redder. When the needles had been inserted four times the tumour showed considerable diminution. A recurrence of the swelling having taken place six weeks after the first application, further needles were applied, and the patient showed the effects of the radiation. He had put on a considerable amount of weight. Although he had to take hypnotics regularly before the treatment, since the radiation was started he was able to get on without hypnotics.

The second patient shown had not yet been treated, and the opinion of the meeting was invited as to whether the case was considered suitable for surgical interference. The object of showing the patient before treatment was to give an opportunity to those present to observe the present condition, as it was his intention to bring the patient forward again after treatment.

The third patient shown had been pronounced by Professor McWeeney to be suffering from epithelioma of the palate. The condition seemed to be much improved, and it was pointed out that the ulcer now seen was only about half of its original size.

The President said that he had no experience of the application of radium except what he had gained from a short visit to the Middlesex Hospital. In some cases what would seem to have been an almost miraculous cure was brought about. One notable case was that of a man who had come into hospital with enlarged prostate, which felt hard and nodular, and did not seem to be suitable for surgical treatment. When the patient was examined by him, had he not heard the previous history, he would have looked upon the prostate as normal.

Mr. A. Blayney read a paper on

INTESTINAL STASIS,

which was published in our last week's issue (p. 566).

The President suggested that, owing to the hour being late and the importance of the subject, the discussion should be postponed to the next meeting of the Surgical Section.

This was unanimously agreed to.

THE NEW DERMATOLOGICAL SOCIETY OF LONDON.

Meeting held Thursday, November 12th, 1914.

The President, Dr. David Walsh, in the Chair.

The following cases were exhibited:—

Dr. H. Samuel showed (1) a case of lupus vulgaris of the buttock in a man who had been previously operated upon for fistula in ano.

Dr. G. Sequeira said that it was surprising how many cases of fistula he saw in which he could find no other evidences of tubercle. He would try tuberculin, or failing that, vigorous local measures such as scraping and the application of strong carbolic. At the Dermatological Section of the British Medical Association at Aberdeen last summer Dr. Norman Walker advocated the rubbing in of tuberculin ointment.

Dr. Norman Meachen said he had tried tuberculin ointment in one case. He used 10 per cent. in that case, and on the second day the temperature had risen to 104°. Dr. Walker used 5 per cent., and he had stated there was little or no reaction.

(2) A woman with patches on the chest and lower extremities in which scaliness, telangiectases, and atrophy were features. The borders were hyperæmic and violaceous. The Wassermann test was negative.

The President did not regard the case as one of sclerodermia. She had several shiny papules on the neck, and he was inclined to regard the case as a form of lichen planus.

Dr. Meachen referred to the very exhaustive paper recently published by McKee, the President of the American Dermatological Association, on "White Spot Disease," one variety of which he called "circumscribed sclerodermia." The author discussed the relationship of that form to lichen sclerosus, a synomym adopted by some English authors. In that there was an ivory-like smoothness of the skin which was let into the ordinary epidermal tissues, which was the characteristic feature of all the author's cases of morphœa. In the class of case now exhibited, he thought the borders were raised in practically every instance, and he suggested it was a case of lichen sclerosus; in other words, lichen planus which had become annular and had begun to atrophy. The lesion in the groin was typical of lichen planus annularis *vel* sclerosus. He considered that the naked-eye features were sufficient to exclude sclerodermia.

(3) A young man, exhibited at a former meeting of the Society, with granuloma annulare. Typical lesions were now present on the backs of the hands.

(4) A woman with an extra-genital chancre upon the hand, and a secondary syphilitic eruption.

(5) A case of Raynaud's disease with dystrophy of the nails.

(6) Lupus erythematosus of the scalp in a woman who had had lesions upon the face. The latter were now cured, but two small places existed upon the scalp.

The President agreed that apart from the history of cured lupus erythematosus on the face, he would not have been able to diagnose the scalp condition. The skin was simply thickened, and in its present condition one might call them seborrhœic papules.

Dr. Meachen thought the case showed very well the commencement of the disease on the scalp: there were first erythematous spots, then a follicular patch which showed slight infiltration.

The President showed a case diagnosed some time ago by another medical man as frontal herpes. The young man now exhibited several pitted scars upon the forehead and adjacent part of the scalp, and the diagnosis was probably of a more serious nature.

Dr. D. Vinrace showed (1) a case of

OCCUPATION-DERMATITIS IN A GARDENER

The patient was a middle-aged man, who presented an eczematous eruption of the hands and arms. The exact source of the dermatitis was unknown.

The President said that in all cases similar to this which he had seen there was something wrong with the circulation. This man's heart was found to be intermittent, and there was reduplication of the first sound. Almost any plants might produce such irritation—though some were more acrid than others—in the presence of some predisposing condition, especially a previous trauma. This man had been exposed to tar. The arm abscess was secondary to this, and was probably staphylococcic. One saw a similar condition in some of the people whose work was collecting lilies. He would like to have a drawing of the case. He saw a striking set of cases in Jersey, and nearly all had heart disease, with failure of compensation.

(2) A case of tertiary syphilitic ulceration of foot improved by intravenous injection of neo-salvarsan, in a man who had had prolonged treatment with mercury and iodides with no benefit. The exhibitor said that the smallness of the dose—half his usual practice—was experimental, but had proved sufficient for the purpose in this instance. He had had without exception excellent results by giving 10 c.c. of fluid with the dose intravenously. He gave a pint of fluid by the mouth an hour beforehand, and an aperient over-night. The ordinary cream produced pain and focal inflammation, sometimes abscess which needed incision, as had happened in some of his patients. As compared with the intravenous method, he did not favour intramuscular injection. In the present case, within a few weeks of the first intravenous injection of .3 grm. of neo-salvarsan by Dr. Benjafield there was a band of almost normal tissue across the foot. He himself had given a second dose of .3 with further improvement. Three-fourths of the ulceration had now disappeared following upon that treatment.

(3) A man with an ulcer of the leg, who denied all venereal disease. He also had a psoriatic patch on the right arm.

(4) A case of seborrhœic dermatitis of the face and scalp in a young man.

Dr. Meachen showed (1)

TWO CASES OF LUPUS ERYTHEMATOSUS OF THE SCALP ALONE.

One patient was a woman who had had the affection for twelve years, and the other was a man who had suffered for fourteen years. Neither patient presented any lesions elsewhere.

The President remarked upon the rarity of the condition when entirely confined to the scalp. He had only seen a few such in all his hospital experience, and Dr. Meachen was fortunate to encounter two at the same time.

(2) A man with nodular lesions upon the backs of the knuckles of four months' duration. They were said to disappear in warm weather and not to itch. Their appearance suggested that of rheumatic nodules or severe chilbains. He had similar tophi-like nodules in the ears. Some of them had broken and left a small scar, suggesting a papulo-necrotic tuberculide.

The President said the case reminded him of osteoarthritic nodules on the elbow. They disappeared afterwards, having been seen by the late Dr. Murrell, of Westminster Hospital, who did not hesitate to call them rheumatic nodules.

Dr. Samuel said he had not had experience of erythema diutinum, but from the descriptions this might be a case. Rheumatic nodules in children, in association with acute rheumatism, were of bad omen, usually indicating endocarditis, pericarditis, or myocarditis.

Dr. Vinrace said he would apply the term "rheumatoid" rather than "rheumatic." Sometimes the condition went on to deformity of the hands, and might affect many joints. The thickening in this case was not in the joints, but in the long bones.

Dr. Sequeira said he had seen several cases of erythema diutinum, and there usually seemed to be a history of gout.

HARVEIAN SOCIETY OF LONDON.

Meeting held November 26th, 1914.

The President, Mr. J. Jackson Clarke, F.R.C.S., in the Chair.

A discussion was held on

DRUG HABIT AND ITS TREATMENT BY MODERN MEANS.

Dr. H. Crichton Miller, in opening the discussion, said that the treatment consisted of two stages—(1) the withdrawal of the drug, which could be carried out largely on group lines; (2) the "cure proper," or a reconstruction of the patient's whole mental and nervous dispositions on natural lines. The latter could only follow strictly individual indications. Having spoken of the causes and of the procedures which are employed in the withdrawal of drugs, he considered the "cure proper." This was closely related to the ætiology. He spoke of the *rôles* played by psycho-analysis and hypnotic suggestion in this part of the treatment.

Dr. J. F. Woods recounted his experiences of the treatment of 25 cases of drug habit.

Mr. Campbell Williams, Dr. R. H. Cole, Mr. Ernest Clark, Dr. W. H. Willcox, and Dr. J. A. Davidson also took part in the discussion.

SPECIAL REPORTS.

GENERAL MEDICAL COUNCIL.

SECOND DAY, WEDNESDAY, NOVEMBER 25th, 1914.

Sir Donald MacAlister, President, in the Chair.

The *Minutes* of the last Meeting were taken as read and confirmed.

The Council proceeded to the consideration adjourned from May 29th, 1914, of the case of William Blaikie Mason, registered as of 218, Somers Road, Southsea, M.R.C.S.Eng., 1893, L.R.C.P.Lond., 1893, who had been summoned to appear before the Council on the following charge:—

"That being a registered medical practitioner you on November 1st, 1913, signed a certificate that one Patrick Matthews, of 46, Raglan Street, Southsea was suffering from gastric colic and was unable to follow his occupation, whereas you had neither seen nor examined the said Patrick Matthews, which said certificate was untrue, misleading and improper. "And that in relation thereto you have been guilty of infamous conduct in a professional respect."

The Complainants were the Lords Commissioners of the Admiralty.

At the conclusion of the proceedings the President announced the decision of the Council as follows :—

Mr. William Blaikie Mason : I have to inform you that the Council has found that the facts alleged against you in the Notice of Inquiry have been proved : that the Council takes a very serious view indeed of the offence you have committed ; and that it has already marked its sense of the gravity of such offences by issuing in the Medical Journals and elsewhere in November, 1911, a warning notice.

In order to give you an opportunity to prove to the Council that you realise the gravity of your offence, and to produce evidence from your professional brethren regarding your character and conduct generally, the Council has postponed judgment till the November Session, when you will be required to attend and produce testimony to the effect above specified.

Mr. Mason attended in answer to his Notice ; he was not accompanied by Counsel or Solicitor.

The Lords Commissioners of the Admiralty, the complainants, were not represented.

The Acting-Registrar having read the Notice in the absence of the Complainants, the Council's Solicitor read a communication from Mr. W. Graham, Greene, of the Admiralty, dated November 2nd 1914, intimating that their Lordships had no further evidence to offer.

Mr. Mason then read a Statutory Declaration which he had made, and four certificates of good character from his professional brethren and others in Portsmouth, exhibited thereto, which he put in.

Mr. Mason also addressed the Council in his own behalf, and renewed the undertaking which he had given at the previous hearing.

The Council's Solicitor did not desire to put any questions to Mr. Mason.

Strangers then, by direction from the Chair, withdrew, in order that the Council might deliberate on the case *in camera.*

Strangers having been re-admitted, the President announced the Council's judgment as follows :—

Mr. William Blaikie Mason : I have to inform you that the Council do not see fit to direct the Acting-Registrar to erase from the *Medical Register* the name of William Blaikie Mason.

The Council proceeded to the consideration, adjourned from May 28th, 1914, of the case of Alexander Girvan, registered as of 8 Palace Street, Buckingham Gate, London, S.W., M.B., C.M., 1894, M.D. 1904 U.Glasg., who had been summoned to appear before the Council on the following charge :—

"That being a registered medical practitioner, you were on December 4th, 1913 (after having elected to be dealt with summarily), convicted at the Westminster Police Court of unlawfully and wilfully making a certain false declaration under and for the purposes of a certain Act relating to the registration of deaths, and fined ten pounds and ten pounds costs."

At the conclusion of the proceedings on May 28th, 1914, the decision of the Council was announced by the President as follows :—

Mr. Alexander Girvan : I have to inform you that the Council have found your conviction for the misdemeanour alleged against you in the Notice to have been proved ; that the Council takes the gravest view of the offence of which you have been convicted ; but that, having regard to the punishment which you have already received, the Council has suspended its judgment until the November Session, when you will be required to attend and to produce evidence from medical men and others that in the interval your professional conduct has been without reproach.

Dr. Girvan attended in answer to his Notice, accompanied by Mr. H. W. Wickham, Counsel, instructed by Messrs. Walton and Hurd, of 55, Fore Street, E.C., his Solicitors.

The Acting-Registrar having read the Notice, the Council's Solicitor, in the absence of a complainant, stated that he had no further evidence to tender.

M. Wickham, on behalf of Dr. Girvan, sought leave to put in certain unattested certificates of character. The Council's Solicitor did not object, and leave was accorded.

Mr. Wickham then read the certificates which he put in from Medical Practitioners and others.

Mr. Wickham addressed the Council on behalf of Dr. Girvan.

Strangers having been re-admitted, after the Council had deliberated *in camera*, the President announced the judgment of the Council as follows :—

Mr. Girvan, I have to inform you that the Council has considered once more the conviction which has been proved against you, that the Council takes a very grave view of the misdemeanour of which you have been convicted, but in view of the certificates of character which have been put in on your behalf, the Council has not seen fit to direct the Acting-Registrar to erase your name from the *Medical Register.*

The Council proceeded to the consideration adjourned from May 28th, 1914, of the case of Haripado Chatterjee, registered as of 1, East View, South Moor, Stanley, Co. Durham, L.R.C.P. and S.Edin., and L.R.F.P.S. Glasg. 1910, who had been summoned to appear before the Council on the following charge :—

"That, being a registered medical practitioner you, in the year 1913, accepted the post of medical officer of an association known as the South Moor Medical Association in the knowledge that such association had through its officials, by widely distributed circulars, by personal canvassing and by solicitation of members of the Miners' Union in the South Moor district, sought to secure members of such association who, on joining it, would become the patients of the medical officer thereof.

"And further that you have by public speaking in the South Moor district and by advertising in such speeches your own qualifications taken a prominent part in inducing and endeavouring to induce persons to join the said Association and so to become your patients.

"And further that throughout the year 1913, knowing that you were being advertised in the South Moor district as the doctor of the said Association, you acquiesced in such advertising and continued to be employed as its medical officer.

"And that in relation thereto you have been guilty of infamous conduct in a professional respect."

The Complainants were the British Medical Association.

At the conclusion of the preceedings on May 28th, 1914, the decision of the Council was announced by the President as follows :—

Mr. Chatterjee : I have to inform you that the Council has carefully considered the facts alleged against you in the Notice of Inquiry, and has found that the following fact has been proved, viz., that you have by public speaking in the South Moor district and by advertising in such speeches your own qualifications taken a prominent part in inducing and endeavouring to induce persons to join the said Association and so to become your patients, but that the Council has suspended judgment till the November Session, when you will be required to be present and to produce evidence as to your professional conduct in the interval, and as to the methods of the Association under which you have accepted employment.

The President explained to Mr. Chatterjee's Solicitor, Mr. Stewart, that the other facts alleged in the Notice of Inquiry had not been proved to the satisfaction of the Council.

Mr. Chatterjee attended in answer to his Notice; he was not accompanied by Counsel or Solicitor.

The British Medical Association, the Complainants, were represented by Mr. W. E. Hempson, their Solicitor.

The President called upon any member of the Council who was also a member of the British Medical Association, the Complainant body, to withdraw.

No member of the British Medical Association was present.

The Acting-Registrar read the Notice.

Mr. W. E. Hempson, on behalf of the Complainants, stated that he had no further evidence to tender.

Mr. Chatterjee then read a Statutory Declaration which he had made, together with testimonials as to character which he put in. Mr. Chatterjee answered a question put to him by a member through the Chair.

Mr. Hempson did not desire to put any question to Mr. Chatterjee, who addressed the Council on his own behalf.

Strangers having been re-admitted, after the Council had deliberated *in camera*, the President announced the Council's judgment as follows:—

Mr. Chatterjee: The Council have carefully considered the evidence which you have brought on your own behalf, and from two registered practitioners, and, being satisfied that as you severed your connection with the South Moor Medical Association immediately, you could not bring the other evidence which you were required to furnish, as to the methods by which this Association is now conducted, the Council has not seen fit to direct the Acting-Registrar to erase your name from the *Medical Register*.

The Council then proceeded to the consideration on Wednesday, November 25th, at 2 p.m., adjourned from June 1st, 1914, of the case of Caspar Denis Downing, registered as of 47, Mount Pleasant Square, Ranelagh, Dublin, L.A.H.Dubl. 1912, who had been summoned to appear before the Council on the following charge —

"That being a registered medical practitioner you were convicted:

(1) On February 22nd, 1913, at the City Police Court, Liverpool, of being guilty while drunk of disorderly behaviour in Windsor Street, Liverpool;

"(2) On August 2nd, 1913, at the City Police Court, Liverpool, of being guilty while drunk of disorderly behaviour in Boundary Street, Liverpool; and

"(3) On December 13th, 1913, at the Inns-quay Police Court, Dublin, of being found drunk in a highway."

At the conclusion of the proceedings the President announced the decision of the Council as follows:—

"I have to state that the Council has found that the convictions for misdemeanour alleged against Mr. Caspar Denis Downing in the Notice of Inquiry have been proved, but that judgment has been postponed until the next Session of the Council in November, when Mr. Downing will be required to be present and to produce satisfactory evidence as to his conduct in the interval."

Mr. Downing did not attend in answer to his Notice, nor was he represented by Counsel or Solicitor.

The Acting-Registrar having read the Notice in the absence of a Complainant, the Council's Solicitor placed the facts before the Council.

He stated that he had received a telegram from Mr. Downing the day before stating that he would be unable to be present. He put in the record of a further conviction in Liverpool, on September 9th, 1914, and a letter from Mr. Downing in answer to the charge.

Strangers having been re-admitted, after the Council had deliberated *in camera*, the President announced the decision of the Council as follows:—

I have to announce that Caspar Denis Downing having been proved to have been convicted of the misdemeanour alleged against him in the Notice, the Council has directed the Acting-Registrar to erase from the *Medical Register* the name of Caspar Denis Downing.

The Council proceeded to the consideration, adjourned from May 28th, 1914, of the charge against Valleck Cartwright Mallan, in regard to whom the Dental Committee had found the following facts:—

The said Valleck Cartwright Mallan was registered in the *Dentists' Register* on December 6th, 1878, as "In practice on July 22nd, 1878," and his address in the *Register* for the current year is 106 Edgware Road, London, W.

The said Valleck Cartwright Mallan practises at 106 Edgware Road aforesaid, and issues and distributes as widely as he can a card and an explanatory pamphlet advertising his practice. The card contains a number of illustrations of American plateless teeth; the pamphlet enlarges upon the advantages of consulting the said V. C. Mallan, and contains a photographic reproduction of a newspaper paragraph on the long-standing reputation of the said V. C. Mallan and his family since the beginning of the nineteenth century. The said V. C. Mallan stated that the paragraph appeared in the *Catholic Times*, and was not an advertisement, although he advertises in that paper.

The complainants also submitted a two-column article which had appeared in the *Hampstead Advertiser* of July 17th, 1913, containing a portrait of the said V. C. Mallan, and photograph of a challenge cup which he had presented in connection with local cricket. The said article contained a lengthy and puffing description of the said V. C. Mallan as a dentist as well as a public man interested in the public affairs of Marylebone.

The Complainants did not offer any proof that the said V. C. Mallan was responsible for this article, but he admitted in answer to questions that he had been interviewed by the *Hampstead Advertiser* and had given the information, some of which was untrue, therein contained, that although he had not paid for it he had subscribed for one hundred copies which he had sent out to various people, and that he had in fact used the article as an advertisement for his practice.

At the conclusion of the inquiry before the Dental Committee, the said V. C. Mallan offered to give an undertaking that in future he would not advertise in any form of which the Council disapproved.

At the conclusion of the proceedings of the General Council on May 28th, 1914, the President announced its decision as follows:—

Mr. Mallan: The Council has considered the Report of the Dental Committee in regard to the facts proved against you and it has considered the undertaking which you have given, that in future you will not advertise in any form of which the Council disapproves. The Council has deferred the further consideration of your case to the November Session, when you will be required to be present and to produce satisfactory evidence as to your conduct in the interval, with particular reference to the manner in which you have carried out the undertaking regarding advertising which you have given to the Council.

The complaint against Valleck Cartwright Mallan having been considered by the Council and directed to be considered further at the November Session, the Dental Committee reported further as follows:

The case was considered by the Dental Committee, on May 28th, 1914.

The following parties attended before the Committee and were duly heard:—

The complainants, the British Dental Association, represented by Mr. R. W. Turner, Counsel, instructed by Messrs. Bowman and Curtis-Hayward, Solicitors.

The said Valleck Cartwright Mallan personally.

Mr. William Fletcher Thomas Brown, managing clerk to Messrs. Bowman and Curtis-Hayward, gave evidence of a visit he had paid to the premises of the accused at 106 Edgware Road, W., and that the only difference he had observed in the appearance of the place since the hearing in May last was that the photographs of patients and testimonials from them had been removed from the entrance lobby. Mr. Turner stated that the complainants believed that the distribution of cards and pamphlets had ceased.

The said Valleck Cartwright Mallan admitted the accuracy of Mr. Brown's evidence, but denied that he had broken the undertaking not to advertise which he had given to the Council, and contended that such undertaking was intended to apply only to the first ground of complaint (as to cards and pamphlets), and that he had implicitly kept his promise. The second ground related to a single past incident. As regards the third ground of complaint he had not intended that to be included in his undertaking at all, and had removed the photographs and testimonials from the passage because the complainants had made such a point of them. But he had not altered his window, or the front of his premises, and, in answer to a question by the Chairman, the said Valleck Cartwright Mallan said that he refused to alter it, it meant his living, and rather than do away with his window or signs on his premises he would prefer to be off the *Register*.

Mr. Mallan attended in answer to his Notice. He was not attended by Counsel, nor by a Solicitor in his professional capacity.

The British Dental Association, the complainants, were represented by Mr. J. R. B. Hart, Counsel, instructed by Messrs. Bowman and Curtis-Hayward, their Solicitors.

The Acting-Registrar read the Report and the Further Report of the case of Valleck Cartwright Mallan.

Mr. Mallan then addressed the Council in his own behalf, and answered questions put to him from the Chair as to the undertaking which he gave in May.

Mr. Hart addressed the Council on behalf of the Complainants.

Strangers having been re-admitted, after the Council had deliberated *in camera*, the President announced the judgment of the Council as follows :—

Mr. Mallan : I have to call your particular attention to what I am going to say to you now :—

The charge made against you included the following statement :—

" That being a registered dentist you have extensively advertised your practice :—

" . . . (*c*) by means of various conspicuous notices on the outside and inside of your premises at 106 Edgware Road, W., where you carry on your profession, of a shop window on the ground floor thereof filled with shelves of false teeth, and notices advertising your practice. . . ."

The Council are not entirely satisfied that you fully understood the undertaking which you gave to them to be an undertaking to discontinue advertising by the particular means set forth in this paragraph of the charge. The Council recognise that you have carried out an undertaking to discontinue advertising by the other means specified in the charge.

The Council desire me to impress upon you that the means of advertising specified in paragraph (*c*) of the charge are no less objectionable than the others, and fall within the resolution of May, 1894, of which you are aware.

They propose to give you a further opportunity of discontinuing the objectionable forms of advertising which you have continued to adopt and for this purpose postpone their judgment in your case until May next.

A copy of this judgment will be sent to you in due course.

Moved by the Chairman of the Business Committee, seconded by Sir Charles Ball, and agreed to :—

" That Dr. Little be elected a member of the Business Committee in the room of the late Sir Christopher Nixon."

The Council proceeded to the consideration of the case of James Shirran Abernethy Walker, registered as of 416 Oldham Road, Manchester, M.B., C.M. 1887, M.D. 1898, Univ. Aberd., who had been summoned to appear before the Council on the following charge :—

" That being a registered medical practitioner you gave under the National Insurance Acts 1911 to 1913 four certificates dated July 19th and August 7th, 18th and 25th, 1913, respectively, certifying that you had on those days respectively seen one Henrietta Horridge, and that she was suffering from chest affection, and was thereby still totally incapable of work, whereas you had not on any of those days either seen or examined the said Henrietta Horridge.

" And that you authorised John Watt, a registered medical practitioner, to furnish similar certificates on your behalf in respect of the said Henrietta Horridge which were dated respectively July 2 and August 5, 1913, whereas neither you nor the said John Watt had either examined or seen her on either of those days.

" All of which certificates were untrue, misleading, or improper.

" And that in relation thereto you have been guilty of infamous conduct in a professional respect."

The complainants were the Manchester Insurance Committee.

The Council also proceeded to the consideration of the case of John Watt, registered as of 416 Oldham Road, Newton Heath, Manchester, M.B., C.M. 1892, Univ. Glasg., who had been summoned to appear before the Council on the following charge :—

" That being a registered medical practitioner, you gave under the National Insurance Acts 1911 to 1913 two certificates dated July 28th and August 5th, 1913, respectively, certifying that you had on those days respectively seen one Henrietta Horridge, and that she was suffering from chest affection and was thereby still totally incapable of work ; whereas you had not on either of those days seen or examined the said Henrietta Horridge, both of which certificates were untrue, misleading or improper.

" And that in relation thereto you have been guilty of infamous conduct in a professional respect."

The Council's attention was called to this case by the Manchester Insurance Committee.

Dr. Walker and Mr. Watt attended in answer to their Notices, accompanied by Mr. A. J. F. Wedderburn, S.S.C., their Solicitor.

The Manchester Insurance Committee, the complainants, were represented by Mr. R. V. Clayton, and Dr. T. A. Goodfellow, of the Medical Service Sub-Committee, and Mr. J. E. Lilley, the Clerk to the Committee.

On question put from the Chair it was ascertained from Mr. Wedderburn, their Solicitor, that Dr. Walker and Mr. Watt were willing that their cases should be taken together.

The Council's Solicitor having read the Notice, Mr. Clayton stated the case for the Complainants, and put in the six certificates complained of, four signed by Dr. Walker and two by Mr. Watt.

Mr. Clayton tendered the printed copy of the correspondence in the case and the printed form of the certificates. Mr. Wedderburn did not object to the reception of the prints as accurate, and they were accordingly put in.

Mr. Wedderburn then called Dr. Walker as a witness on his own behalf, and examined him as to certificates for the notification of sickness by various Industrial Societies, of which Dr. Walker had been Medical Officer prior to the passing of the National Health Insurance Act, in none of which was there any reference to the date of the medical examination of the member. He was examined as to the circumstances in which he had given the certificates complained of, and expressed his regret for his negligence.

No member desired to put any question to Dr. Walker through the Chair. Mr. Clayton did not desire to cross-examine Dr. Walker.

Mr. Wedderburn called Mr. John Watt and examined him as a witness on his own behalf. Mr. Watt concurred with the evidence given by Dr. Walker which he had heard. He was examined as to the accuracy of the statement which had been drawn up for him by Mr. Wedderburn, gave an undertaking not to give certificates in a similar manner in future, and expressed his regret for his negligence.

No member of the Council desired to put any question to Mr. Watt through the Chair. Mr. Clayton did not desire to cross-examine Mr. Watt.

Mr. Wedderburn called Mrs. Horridge as a witness as to bringing the certificates to Dr. Walker for signature. Mr. Clayton did not dispute this fact.

Moved by Sir Henry Morris, seconded by Sir William Whitla, and agreed to:—

"That Clause 1 of Chapter IV. of the Standing Orders be suspended, and that the Council continue to sit till 6.15 p.m. to enable Mr. Wedderburn to complete his evidence and to release his witnesses.

Mr. Wedderburn called Mr. J. U. Smith, a member of the Medical Service Sub-Committee, as a witness, and examined him as to a letter which he had written in regard to the case.

The Council then adjourned.

THIRD DAY—THURSDAY, NOVEMBER 26th, 1914.

The President, Sir Donald MacAlister, in the Chair.

Further consideration of the cases, taken together, of J. S. A. Walker and of John Watt. After a long speech by the Counsel for the defendants, the Council deliberated *in camerâ*, and on readmission of strangers the President, addressing the parties concerned, said that the facts had been proved to the satisfaction of the Council which took a grave view of the case, but the Council had taken the explanations given in good faith, and therefore the Acting Registrar had not been ordered to erase from the *Register* the names of J. S. A. Walker and John Watt.

The Council then considered the case of Cartwright Davis registered as of 81 Knightsbridge, S.W., "in practice on July 22nd, 1878, in regard to whom the Dental Committee have found the following facts:

The *Dentists' Register* contains the following entry:—

Name.	Address.	Date of Registration.	Description and date of Qualification.
Cartwright Davis.	81 Knightsbridge, London, S.W.	1878, December 31st.	In practice on July 22nd, 1878.

Information having reached the British Dental Association early in the present year that the person practising as above was neither Cartwright Davis nor a dentist, the Association, with the assistance of the officials of the Council, made careful and thorough inquiry and ascertained the following facts:—

Cartwright Davis was a name under which a Mr. Mallan practised denistry, and in 1878 registered under the Dentists Act. Some years ago he took as an assistant one John Edwin Sutton, who, however, never qualified as a dentist or registered. On the death of Mallan his widow carried on the practice through Sutton, who married her daughter, and since 1903 Sutton had regularly signed the returns to the Registrar of the Council in the name of Cartright Davis, thereby maintaining that name upon the *Register* and himself practising as a dentist under that name.

The British Dental Association prosecuted Sutton under the Perjury Act, 1911, and pressed for his committal for trial at the Central Criminal Court. He was tried on July 21st, 1914, at the Central Criminal Court before the Common Serjeant, and pleaded guilty to the charge of unlawfully procuring himself to be registered in the name of Cartwright Davis on the *Register* of persons qualified to practise as dentists. The Common Serjeant bound Sutton over in a recognisance of £20 to come up for judgment if called upon, but seeing that this was the first case brought forward under the new Act he did not impose any other penalty.

The facts as above stated have been formally brought to the attention of the Council by the British Dental Association, and the Committee is advised that as Sutton, by pleading guilty, admitted the facts it is not necessary, in dealing with the question of the removal of the name of Cartwright Davis from the *Dentists' Register*, to hold a formal inquiry and require further proof of the facts. The Committee, therefore, being satisfied that the facts are as above stated, report them to the Council.

By section 13 of the Dentists Act the Council shall cause to be erased from the *Dentists' Register* any entry which has been inaccurately or fraudulently made.

The Solicitor of the Council read the report and pointed out that this was not the same Mallan as the dentist the Council had had before them on the previous day.

The Council, after deliberating *in camerâ*, directed the Assistant Registrar to erase from the *Register* the name of Cartwright Davis.

The Council next adopted the name of Sir Lambert Ormsby, nominated by the Irish Branch Council, as a member of the Education Committee in the place of the late Rt. Hon. Sir Christopher Nixon, Bart.; and also, as nominee of the same Branch Council, the name of Dr. Magennis in the room of Dr. Adye Curran.

The reports from the Examination Committee, presented by Sir Chas. Ball:—

(*a*) On a return from the Indian Medical Service;

(*b*) On the examinations held by the Apothecaries' Hall of Ireland, 1913-1914.

(*c*) On reports by the Assistant Examiners in Surgery on the examinations of the Apothecaries' Hall of Ireland held since May, 1914,

were received and entered on the minutes.

A long discussion took place with regard to (*b*) and (*c*) dealing with the Apothecaries' Hall of Ireland.

A. Moved by the Chairman of the Examination Committee, seconded by Mr. Verrall: "That the General Council take into consideration the question of representing to His Majesty's Most Honourable Privy Council that the Course of Study and Examinations, to be gone through in order to obtain the qualification of Licentiate of the Apothecaries' Hall of Ireland, are not such as to secure the possession by persons obtaining that qualification of the requisite knowledge and skill for the efficient practice of their profession."

The motion was carried.

B. Moved by the Chairman of the Examination Committee, seconded by Mr. Verrall: "That the Irish Branch Council be authorised to appoint for a further period of one year a Deputy to attend and be present on behalf of the General Council at the Professional Examinations held by the Apothecaries' Hall, for the purposes set forth in Section 18 of the Medical Act, 1858; that the Deputy so appointed present to the Council a report on the general character of such examinations; and that he be paid a salary of £50 for the year," which was carried after Dr. Magennis proposed as an amendment the motion of which he had given notice: "That the time had come when any exceptional treatment of the Apothecaries' Hall of Dublin as regards inspection of its examinations and reports on them should cease." This amendment did not find a seconder, and therefore dropped.

Moved by the Chairman of the Examination Committee, seconded by Dr. Taylor, and agreed to: "That the Examination Committee be authorised to refer to the Apothecaries' Hall the reports by the Assistant Examiners in Surgery on the Examinations of the Apothecaries' Hall of Ireland, held since May, 1914, and the tables relating thereto supplied by the Apothecaries' Hall, with a request that that body will furnish its observations in regard to them."

Moved by the Chairman of the Examination Committee, seconded by Dr. Saundby, and agreed to: "That the question referred to in the foregoing resolution A of this day's proceedings be taken into consideration at the May Session of the Council."

Moved by Sir Henry Morris, seconded by Mr. Thomson, and agreed to: "That the Examination Committee be requested to draw up a summary statement of the particulars to be considered by the Council in pursuance of the foregoing resolution A."

The Council considered the report of the Public Health Committee, brought forward by Sir John Moore, seconded by Dr. Newsholme. It was received, entered on the minutes, and approved.

The oral report from the Chairman of the Pharmacopœia Committee was approved.

The Report of the Students' Registration Committee, brought forward by Dr. Norman Moore, seconded by Sir H. Morris, was received, entered on the minutes and approved.

The report from the Dental Education and Examination Committee was received, entered on the minutes, and approved after Mr. Tomes had said a few words. In the discussion that followed Dr. Newsholme, who had seconded, remarked that in 34 years there had been no increase in the number of qualified dentists. An amendment by Dr. Macdonald, seconded by Mr. Hodsdon, was carried that this matter be referred to the Dental Committee, so that facts might be gathered.

Dr. Langley Browne, seconded by Sir J. Moore, brought forward the report of the Unqualified Practice Prevention Committee, which was received and entered on the minutes and its recommendations approved.

The Committee dealt with the report of the Select Committee on Patent Medicines, and recommended: (*a*) "That the General Council should convey to the Lord President of the Privy Council an expression of its complete approval of the recommendations of the Select Committee" (*b*) "That the General Council represent to the Government through the Lord President the necessity for the immediate creation of a Ministry of Public Health in pursuance of the recommendations of the Select Committee."

A vote of thanks to the President was carried by acclamation, and the Council, having received *in camerâ* a report from the Office Site Committee, rose.

GOVERNMENT AND CIVIL AND MILITARY SANITATION IN THE TROPICS.

The first of two Chadwick public lectures was delivered by Sir Ronald Ross, K.C.B., F.R.S., at the London School of Economics, on December 4th.

The lecturer set out by stating that the subject of the relations between administration and public sanitation had not been completely discussed. The older theory of government, well enunciated by David Hume, was that government has "no other object or purpose but the distribution of justice." This idea has now been abandoned in favour of the view that government should do everything possible for the prosperity of its subjects. The lecturer then proceeded to trace up the history of tropical sanitation. He observed that civilisation has been excluded from large tropical areas such as tropical Africa, and ascribed this largely to the presence there of grave tropical diseases which had not been investigated until recently. We now know how many of these maladies are caused and may be prevented; but the question still remains whether public administration can utilise the preventive measures suggested by science. Examining the history of this question, the lecturer pointed out that in the old days medical and sanitary matters were originally in the hands of the priestly caste, many of whose religious injunctions were really of a sanitary nature. Thus the Greek oracles and temples were often hospitals. Nevertheless, the ancients had some care of public sanitation, as witness the reported success of the philosopher Empedocles in removing malaria from a Sicilian town five hundred years before Christ. In the Middle-Ages little attention was given to sanitary matters, and epidemics often provoked ridiculous attempts at prevention.

The modern history of tropical sanitation begins from the time when the European nations commenced colonisation. Terrible sickness was experienced in the time of the old voyagers and conquerors. Little attention was given to good food, water conservancy, dress and housing. About the middle of last century sanitation in Europe began to approach its modern growth, and naturally affected tropical sanitation. The lecturer enumerated the seven commandments of sanitary science and concluded by describing how they began to be obeyed by governments and people in the tropics, although obedience is not yet complete.

The second lecture, on Friday next, December 11th, illustrated with lantern slides, will give a review of the present sanitary conditions, the efforts made by governments to deal with sickness, and the lecturer's suggestions on various points.

BELGIAN MEDICAL MEN
AND PHARMACISTS' RELIEF FUND.

Amount previously received at Offices of Medical Press and Circular	74	13	0
Additional list, per London Office:—			
Messrs Allen and Hanbury	2	2	0
W. Edgar Allen, Esq.	1	1	0
Per Dr. Macnaughton Jones (additional list):—			
Mrs. Mary Skinner	0	5	0
Rev. Roderick Macleod	1	0	0
Geoffrey T. Unwin, Esq.	1	1	0
Col. Alexander Stewart	1	0	0
Samson Taylor, Esq.	1	1	0
W. Kingham, Esq.	1	0	0
Lady Rushout	5	0	0
Mrs. Savery	10	10	0
Dr. Shepherd Boyd	1	0	0
C. L. R.	0	5	0
Miss G. Boscombe	0	2	6
Miss Hill Boscombe	0	2	6
Miss C. Ganderton	1	15	0
Miss Letitia Hellis	1	11	6
Miss Woods	0	10	0
Robert Woods, Esq	1	1	0
Mrs. F. B. E. Faulkland	1	1	0
Lady Katherine de la Poer Trench...	2	2	0
Katherine J. Inayle	1	1	0
Thos. Wall, Esq.	3	3	0
Mrs. Harrington Harris	2	2	0

Preliminary list of subscriptions which have been received or promised from the Royal College of Physicians of Ireland and Royal College of Surgeons in Ireland:—

	£	s.	d.
"Anonymous" ...	1	1	0
Dr. Arthur Atock ...	2	2	0
Dr. C. M. Benson ...	5	5	0
Mr. A. Blayney ...	10	10	0
Dr. H. U. Byrne ...	2	2	0
Sir Charles Cameron	5	0	0
Dr. J. Galway Cooke	10	0	0
Dr. MacDowel Cosgrave, P.R.C.P.I. ...	10	10	0
Dr. S. M. Cowe ...	2	2	0
The Rt. Hon. M. F. Cox, P.C.	5	5	0
Dr. W. M. Crofton ...	5	5	0
Dr. G. Cope	1	1	0
Dr. Albert Croly ...	5	5	0
Dr. J. T. Daniel ...	2	2	0
Dr. De la Hoyde ...	1	1	0
Dr. M. Dempsey ...	3	3	0
Dr. P. Dempsey ...	5	5	0
Dr. Frank Dunne ...	2	2	0
Mr. Conway Dwyer, P R.C.S.I.	10	10	0
Miss A. S. Eustace	1	0	0
Dr. H. M. Eustace	1	0	0
Dr. N. Falkiner ...	2	2	0
Dr. J. M. Finny ...	2	2	0
Dr. C. E. FitzGerald	10	10	0
Dr. William Fottrell	2	0	0
Dr. W. V. Furlong	5	5	0
Dr. M. J. Oibson ...	5	5	0
Dr. S. T. Gordon ...	1	1	0
Sur.-Gen. C. Joynt	2	2	0
Dr. T. P. C. Kirkpatrick	10	10	0
Dr. Wm. Lalor ...	2	0	0
Sir John Lentaigne	10	10	0
Dr. Little	21	0	0
Dr. T. M. M'Evoy ...	2	2	0
Dr. M. M'Hugh ...	2	2	0
Prof. E. P. M'Loughlin	10	10	0
Dr. R. B. McVittie ...	2	2	0
Dr. E. Magennis ...	1	1	0
Dr. Katherine Maguire	5	0	0
Dr. J. A. Matson ...	1	1	0
Mr. R. C. B. Maunsell, F.R.C.S.I. ...	2	2	0
Dr. P. Merrin ...	1	1	0
Dr. George Moore ...	3	3	0
Sir John Moore ...	5	5	0
Dr. T. H. Moorhead	2	2	0
Dr. John Murphy ...	5	5	0
Dr. Thomas Neill ...	1	0	0
Dr. George Nesbitt ...	2	2	0
Dr. C. M. O'Brien ...	5	5	0
Dr. J. F. O'Carroll, V.-P.R.C.P.I. ...	10	10	0
Sir Lambert Ormsby	5	5	0
Dr. Alfred R. Parsons	5	5	0
Dr. George Peacocke	2	2	0
Dr. Joseph Petit ...	1	0	0
Miss Purefoy ... , ...	5	0	0
Dr. R. D. Purefoy ...	10	0	0
Dr. F. C. Purser ...	5	5	0
Sir Joseph Redmond	5	5	0
Dr. R. J. Rowlette ...	2	2	0
Dr. J. Spencer Sheill	2	2	0
Mr. Gregg Sherlock	2	2	0
Dr. Alfred Smith ...	5	5	0
Mr. T. N. Smith ...	2	2	0
Dr. Walter Smith ...	5	5	0
Dr. Bethel Solomons	5	5	0
Mr. J. B. Story ...	5	5	0
Mr. Wm. Taylor ...	10	10	0
Sir W. J. Thompson	3	3	0
Dr. D. Turner.. ...	2	2	0
Dr. Hastings Tweedy	10	10	0
Mr. W. I. de C. Wheeler,	10	10	0
Sir S. Woodhouse ...	10	10	0
The Clinical Club ...	10	10	0
The Odontoblast Club	10	10	0

Further donations will be most gratefully received at the Offices of the Medical Press and Circular, 8 Henrietta Street, Covent Garden, London, W.C., or 29 Nassau Street, Dublin. Cheques should be drawn in favour of the Belgian Doctors' Relief Fund, and addressed to the Editor.

CORRESPONDENCE.

FROM OUR SPECIAL CORRESPONDENTS AT HOME.

SCOTLAND.

University of Edinburgh—Resignation of Prof. Wyllie.

The resignation of Professor John Wyllie, the occupant of the Chair of Practice of Physic, is announced. He has been in bad health for some little time, and has of late found that the duties of the chair make demands on his strength to which he is unequal. He was appointed to the chair about fourteen years ago, on the death of Sir Thomas Grainger Stewart, whose duties he had temporarily performed with great success. At the time of his appointment he had just completed his term of office as physician to the Royal Infirmary, and found himself, after fifteen years of active service in the wards, called upon to take up the work anew. Professor Wyllie was always a very successful teacher of medicine, both clinical and systematic, and up to the past few years he invariably had a large following of students. In his younger days he was an indefatigable worker, and was skilful in the use of the ophthalmoscope and laryngoscope on medical diagnosis at a time when these instruments were less used than now. He also simplified methods of instruction in physical diagnosis, and introduced a system of graphic records for physical signs in the cardiac and respiratory systems which has been widely adopted and modified. As a clinical lecturer he had the gift of labelling characteristic symptoms or groups of symptoms with distinctive descriptive names and phrases. Professor Wyllie's chief interest in medicine was in teaching students, and he seldom, at any rate during the last fifteen years, took part in any of the proceedings of medical societies, nor did he attempt to organise, to any great degree, research work in connection with the Chair of Practice of Physic. Notwithstanding this, however, his was a most successful choice from the student's point of view, a fact that has been amply recognised by all his colleagues. Applications for the vacant chair must be in the hands of the Curator of Patronage by January 15th.

Privileges to Students in H.M. Services.

The Senators of the University of Edinburgh, like other University authorities, have granted certain privileges to those whose studies are interrupted by the exigencies of service with H.M. forces. Bursaries will be reserved, war services will not be reckoned in compulsory time limits for honours, etc., interrupted attendances may be resumed without fee, arts degree examinations may be excused, and special attendance certificates may be given to those on active service. In the medical curriculum everything will be done to facilitate its completion by students serving, and service in any medical unit or hospital or detachment of the Red Cross will be accepted as equivalent to clinical medicine or clinical surgery for periods not exceeding six months each. The case of each student will be individually considered at the conclusion of his service with H.M. forces, and steps will be taken to grant him any concessions which are consonant with carrying out the reputation of the general medical council.

Victoria Hospital for Tuberculosis.

A report has been presented by Sir Robert Philip to the Public Health Committee as to the working of this institution, which was transferred to the city on August 6th. The hospital has been placed at the disposal of the military authorities, but the work of the Dispensary and Farm Colony has gone on as usual. The well known functions of the Dispensary as a clearing house, etc., are enumerated, and the value of its work is shown by the statistical reports which embody a summary of what has been done since it was founded in 1887. The frequent occurrence of tuberculosis in certain streets and areas of the town is noteworthy, and is well shown in the tables giving (a) streets from which tuberculosis patients have come since 1887, (b) houses from which tuberculosis patients have come, and (c) houses from which more than ten cases have come between 1887 and 1914. The after-care department of the Dispensary admits of considerable extension. The museum and library will, Sir Robert Philip hopes, receive an annual grant, and the services of the radiographer, hitherto given gratuitously, ought now to be paid for. The work of the farm colony goes on satisfactorily. Of the eighty-eight persons who have been treated there nearly all have not only recovered, but have been restored to a high state of working activity.

Edinburgh Medical Men in France.

Several surgeons and physicians have recently left Edinburgh to serve in hospitals in France. Mr. Alexander Miles leaves this week to take over the Edinburgh and Border Hospital at Dunquerque. This hospital, which has been organised by Mr. Hay, Melrose, is under the British Admiralty, and is at present officered by Dr. Cullen, St. Boswalls, and Dr. Jeffrey, Jedburgh. An expert radiographer has not only voluntteered his services, but has provided an X-ray installation. Dr. Charles McNeal has gone as physician, and Mr. Denis Cotterill as surgeon, to the Red Cross Hospital at Rouen, which went out some time ago under Mr. Struthers.

The Causation of Scarlet Fever.

In view of the present prevalence of scarlet fever in Glasgow and Paisley, a report by a Scottish specialist, Dr. Mair, read by Dr. Elliot Browne at a recent meeting of the Metropolitan Asylums Board, is of the greatest interest. Dr. Mair was appointed by the Board some 15 months ago to investigate the causation of scarlet fever and measles. In his report Dr. Mair states that he has found a micrococcus which he believes is the causal infective agent in scarlet fever. In a matter of this kind, he adds, final certainty can only be attained after prolonged observation; but the results so far obtained are sufficiently important to merit immediate publication, and he hopes that other workers may repeat the experiments and confirm the interpretation which he has placed upon them. Prof. G. Sims Woodhead, as Consultative Bacteriological Adviser to the Board, has expressed the opinion that Dr. Mair's work contains a germ of great promise.

The late Dr. Hume, Jedburgh.

Dr. John Hume, who died on the 30th ult. at his residence, Glenfriars, Jedburgh, qualified as long ago as 1855 by becoming a licentiate of the Royal College of Surgeons of Edinburgh. He was 82 years of age at his death. Dr. Hume was a highly esteemed surgeon and medical practitioner, and was Medical Officer for the parish of Jedburgh, under the Poor-law, for 45 years. He was also for a long period Medical Officer of Health for the burgh of Jedburgh.

Victoria Infirmary, Glasgow.

The annual report of this infirmary states that the average number of resident patients was 260, and the death-rate, after deducting those who died within 48 hours of admission, was 6.2. At the request of the War Office two wards were set aside for wounded soldiers, and these have been occupied by wounded Belgians. Although there has been a slight falling off in the total subscriptions for the year, the workingmen's contributions show a substantial increase, notwithstanding the Insurance Act. An appeal for funds to erect a pavilion to accommodate 80 more patients was about to be made, and plans had been prepared by the architects when the war broke out and it was deemed advisable to postpone the proposal.

The Late Surgeon Miller, R.N.

Surgeon William Miller, R.N., who was killed by the explosion on H.M.S. Bulwark, qualified at Glasgow University in 1906. He was a son of Mr. and Mrs. William Miller, Torbrex, Maxwell Drive, Pollokshields, Glasgow. Their Majesties the King and Queen have sent Dr. Miller's parents a telegram expressing their sympathy.

Glasgow Medical Missionary Society.

Dr. W. L. Reid presided at the annual meeting of this Society, held in the hall of the Royal Faculty of Physicians and Surgeons. Owing partly to the Insurance Act, the number of attendances at the dispensaries was considerably less this year than a few years ago. No one was treated at the dispensaries who was entitled to medical benefit under the act. About 80 male and female students had received training at the dispensaries during the year, and nearly all of them were prospective missionaries. The patients were mostly women and children, and only those not eligible for parish relief and unable to pay for a doctor were admitted. Sir Donald MacAlister was re-elected Honorary President; Dr. W. L. Reid, President; and Drs. J. D. Maclaren, C. R. McLean and Yellowlees, Vice-Presidents.

Motor Ambulances.

Principally through the exertions of Miss N. Anderson, Barskimming, and the generosity of Mr. R. McCrane, of the Haugh, Mauchline, Ayrshire is sending a motor ambulance, named Bonny Jean, to the front. Major Edmund Pullar, of Westerton, Bridge of Allan, is also sending a motor ambulance waggon. The County of Roxburgh is also making arrangements to provide a motor ambulance.

BELFAST.

Whiteabbey Sanatorium

At the monthly meeting of the Council of the County Borough of Belfast, held on the 1st inst., Dr. Hans Gilliland was elected Resident Medical Superintendent subject to the approval of the Local Government Board. The salary attached to this post is £500 per annum. Personal board and lodging are also provided in the institution. Dr. Gilliland is to be congratulated on his appoinment as the first resident medical superintendent of this sanatorium, recently acquired by the Belfast Corporation from the Guardians.

Prevalence of Scarlet Fever in Belfast.

The Chairman of the Public Health Committee of Belfast, Dr. Thomson, commenting on the report of the Medical Officer of Health, said the notifications from scarlet fever continued high. During 1912 there were 916 cases notified, with 48 deaths; in 1913, 2,155, with 153 deaths, and up to the 30th November of this year, 2,062, with 151 deaths. He said the causes of infection were, first, from patients before detection; secondly, from patients whose illness was concealed; thirdly, from patients in whom the disease had not been recognised; and fourthly, from carriers who were not themselves suffering from the disease.

LETTERS TO THE EDITOR.

[We do not hold ourselves responsible for the opinions expressed by our Correspondents.]

CHRONIC RHINORRHŒA IN A SEPUAGENARIAN.

To the Editor of The Medical Press and Circular.

Sir,—Perhaps one of your numerous readers may be able and good enough to help me in a difficulty. I have a patient, aged 72, who about ten years ago commenced with paroxysmal tachycardia. This has now toned down gradually to a generally rapid, feeble and very irregular cardiac activity, under the constant use of digitalis, however—10 minims of the standardised tincture daily. The most annoying trouble is a constant, clear, mucous, nasal discharge, for which atropine is the only drug that gives relief. There is also a mucous diarrhœa, with abdominal pains that would be almost constant but for the use of 1 gr. of opium twice daily. As my patient naturally does not wish to be obliged to take drugs for the remainder of his life, I shall be glad to hear of something that will give a more lasting relief—special nerve tonic for the aged, for instance. I should perhaps add that the nasal discharge is thin and watery when the atropine is not used, clear and thick when it is used, and not copious when sprayed two or three times a day. Hoping for suggestions from some of my professional brethren,

I am, Sir, yours truly,
November 30th, 1914. Expectant.

THE STUDENT'S TRAINING.

To the Editor of The Medical Press and Circular.

Sir,—I note with a sincere pleasure and some little pride that my last letter has had some effect—which could hardly be otherwise than good—upon the sagacious "Observer." He has determined with a fortitude of reformation that I like to see to "confine himself to civilised discussion." So far so good. "Observer" has confessedly tried to alter his methods, and in this new light we must consider his matter. It is poor.

He maintains that a man's "school education, his medical preliminary, and subsequent reading" can with advantage take the place of physics, chemistry and zoology, which, he says, have "no direct bearing on his professional work." This last phrase looks to me very like begging the question.

Of course, it is possible that "Observer" honestly thinks that, for instance, physics has no direct bearing upon the physical examination of the chest. Take the phenomenon of vocal fremitus. We learn that it is increased in lobar pneumonia and decreased in pleural effusion. If, as "Observer" would have it, we learn these two disconnected facts parrotwise, there is no reason why we should not confuse one with the other. But if we have assimilated the elements of physics, and have the slightest realisation of the clinical facts involved we should never hesitate an instant as to the signs' respective incidence. That is my argument.

"Observer" thinks he has caught me tripping. I advocate the assimilation as opposed to the absorption of knowledge. "Observer" asks impertinently—in the word's literal sense—"Can knowledge be assimilated without being absorbed?" I reply, "No, sir, yet there is a difference between the one and the other. A common or bath-room sponge absorbs but does not assimilate. It takes a living organism to assimilate part of what it absorbs, to make it like unto itself and part of its very ego."

That is the difference. I am sorry it has to be explained to "Observer." I had some hope for him till he asked that question. I have little now. His last letter places him among the intellectual sponges whose ideals he advocates.

I am, Sir, yours truly,
Tom A. Hawke.

OPERATIONS FOR APPENDICITIS.

To the Editor of The Medical Press and Circular.

Sir,—It has long been in my mind to give utterance to my thoughts in reference to operations for appendicitis. I am quite satisfied in my own mind that more lives are lost from that disease at the present time than was the case before frequent operations came into vogue. Whether cases are operated on too early or too late does not matter; the only thing that does is that operations are too fatal. The swing of the pendulum will in time be the other way, but at present operations are too frequently performed. It is an opprobrium, too, that the physician cannot render these operations unnecessary. With all our serum treatments these cases ought to be successfully treated without operation. Perhaps when the surgeon has taught the physician a little more he will be able to dispense with the former. Too often, however, he operates without even consulting the physician. I have repeatedly heard of operations on the alimentary canal being performed without a physician seeing the case at all. In such cases the family attendant and the operating surgeon take too much on themselves. The patient has a right to all the advice he can get, and to deprive him of this is not giving him fair play.

To every family medical attendant I would say with all the earnestness in my power: In all cases of serious abdominal disease call in the physician, and then, and not till then, if his advice is to call in a surgeon, do so. But a one-man advice, never.

All inflammatory diseases of the abdomen, or their consequences, ought to be treated successfully by the physician. The present groove the physician has got into reminds me of the rage of former times for removing the ovaries and Fallopian tubes for mere inflammatory disease. Inflammation, as we all know, is only a passing and fairly transient phase.

I am, Sir, yours truly,
Liverpool. A Physician.

ALCOHOL AND THE WAR.

To the Editor of The Medical Press and Circular.

Sir,—I read with pleasure the courteous letter of your correspondent "Therapeutist" in reply to mine on the above subject. I may say with regard to the small amount of alcohol required to set up phagocytic action, about which he is sceptic, I must refer him to Dr. Lyen Smith's very practical article in the *Lancet* of October 10th, and to my clinical experiments published in the *Medical Times* of October 31st, under the heading "Our Sailors' and Soldiers' Grog." From very careful observations of 10,000 men, I am unable to endorse "Therapeutist's" opinion that "the vast majority of our soldiers, if tempted to drink, are in great danger of becoming immoderate in their use of alcohol." On the contrary, I believe that if you treat soldiers as gentlemen, and rely on their honour, the temptation to drink does not come into the question. Further, I believe restriction only incenses the men, does not add to the prestige of their calling, and prevents many educated men and patriots from enlisting. Lastly, if hot soup and milk produce a like effect, how can soldiers always get such luxuries in the trenches and on forced marches?

I am, Sir, yours truly,
Thomas Dutton.

London,
December 4th, 1914.

OBITUARY.

DR. OSCAR JENNINGS.

We regret to announce the death of Dr. William Oscar Jennings, of Carlisle Mansions, S.W., which took place suddenly at Ramsgate on November 23rd, aged 63. The deceased, who qualified as M.R.C.S. in 1873, received his medical education at Guy's Hospital and Paris. He took his M.D.Paris in 1878. Dr. Jennings, who was for many years a staunch friend and supporter of the Medical Press and Circular, resided at one time in Paris. He translated Sir William Gowers' "Diseases of the Spinal Cord" into the French language. He is best known to the medical profession as an authority on the morphia-habit, of the pathology and treatment of which he had made a close study. Most of his published works deal with this subject and may be regarded as classic contributions. He was a member of the French Society of Medical History, and a Fellow of the Royal Society of Medicine. Dr. Jennings leaves behind him a widow and a daughter to mourn his loss, and with them the greatest sympathy will be felt.

MEDICAL NEWS IN BRIEF.

Royal College of Surgeons in Ireland—Students' Union.

There was a large gathering in the Royal College of Surgeons last Thursday night at the inaugural meeting of the Students' Union, presided over by Mr. F. Conway Dwyer, President of the College.

The inaugural address on "The War" was delivered by Mr. T. E. Gordon, F.R.C.S.I., who addressed himself particularly to the students who would be engaged in surgical duties at the front, and pointed out their duty.

The vote of thanks was proposed by Major-General Friend, seconded by Mr. Justice Barton, and passed, the latter declaring that the war was entered in under absolute necessity. The President expressed pride in the College's contribution of young men. The Lord Mayor, in seconding a resolution declaring the Union worthy of support, said that all Ireland was of one view in supporting the Empire in this war. There were 500 licentiates of the College at the front, and 100,000 Irishmen with the colours. A vote of thanks to the President was passed on the motion of Mr J. C. Ferguson, seconded by Mr. H. Hurst, and put by the Recorder.

Royal College of Physicians of Ireland.

At the monthly meeting of the Royal College of Physicians last Friday, Dr. James Little, Senior Fellow of the College, on behalf of Miss Gerrard, presented a portrait in oils of Dr. Jonathan Osborne, President in 1834-5, and for many years King's Professor of Materia Medica and Pharmacy in the School of Physic. Dr. Little is one of the last surviving Dr. Osborne's pupils, and in a delightful speech he gave some personal reminiscences of one who, in his time, occupied an honourable place in Irish medicine. The thanks of the College were given to Miss Gerrard for her generous gift.

Presentation to McDowell Cosgrave.

On Saturday night last Dr. McDowell Cosgrave was entertained to a complimentary dinner by his colleagues of the Drumcondra Hospital, Dublin, on the occasion of his election to the Presidency of the Royal College of Physicians. Dr. Graves Stotter was in the chair, and a presentation was made of a piece of plate to commemorate the happy event and his long association with the Hospital for which he has done so much. The presentation was made by Dr. O'Keeffe.

Royal Naval Medical Service.

The following have been appointed Temporary Surgeons:—A. F. Adamson and P. McGrundy, both to the *Victory*, additional, for SS. *Majic*, to date November 3rd; H. Harvey, to Hospital Ship *China*, vice Cowburn; H. G. Parker, to the *Pembroke III.*, for R.N. Air Service; J. C. Baggs, to R.M. Division, Portsmouth, vice Faill; E. M. Molesworth and F. S. Calthrop, both to the *Victory*, for R.N. Division; G. F. Jones and T. C. Blackwell, both to the *Victory*, additional, for R.N. Division. Crystal Palace, vice Molesworth and Calthrop, respectively, to date November 30th.

Army Medical Service.

The following have been appointed:—Captain Sir Bertrand Edward Dawson, K.C.V.O., M.D., 2nd London General Hospital, T.F., to be temporary Colonel (November 21st).

Royal Army Medical Corps.—To be temporary Lieutenants: D'A. R. W. Cowan, M.B., C. F. Constant (November 6th); H. P. W. White, M.B., G. D. Yates, M.B., F. J. Morris, P. L. Davies, M.B., R. C. Maclachlan, M.B., A. E. Moore, M.D., A. E. M. Woolf, M.B., F.R.C.S., A. Nobbs, M.D. (November 16th); M. C. Turiansky, M.B., J. B. Fisher, M.B. (November 17th); W. C. P. Bremner, M.B., A. L. McLean, M.D., A. B. Raffle, M.D., H. Catling (November 18th); T. F. Murphy (November 19th); C. Clarke, M.D., P. Pattison, M.B., J. I. Shepherd, M.D. (November 21st); S. C. R. Chester to be temporary Quartermaster, with honorary rank of Lieutenant (November 20th).

The Medical Officer of Epsom College.

It is announced that the Council of Epsom College has appointed Mr. P. Jenner Verrall, M.B., B.C. Cantab., F.R.C.S., Medical Officer to the College, in succession to Mr. W. W. Coltart, L.R.C.P., M.R.C.S., who has resigned that position after holding it for 28 years.

The Royal Institution.

Dr. Charles Scott Sherrington, D.Sc., M.D., F.R.S., has been elected Fullerian Professor of Physiology at the Royal Institution for a term of three years.

NOTICES TO CORRESPONDENTS, &c.

☞ CORRESPONDENTS requiring a reply in this column are particularly requested to make use of a *Distinctive Signature* or *Initial*, and to avoid the practice of signing themselves "Reader," "Subscriber," "Old Subscriber," etc. Much confusion will be spared by attention to this rule.

SUBSCRIPTION.

SUBSCRIPTIONS may commence at any date, but the two volumes each year begin on January 1st and July 1st respectively. Terms per annum, 21s; post free at home or abroad.

Foreign subscriptions must be paid in advance. For India, Messrs. Thacker, Spink and Co., of Calcutta, are our officially-appointed agents. Indian subscriptions are Rs. 15.12. Messrs. Dawson and Sons are our special agents for Canada. For South Africa, The Record Publishing Co., Cape Town. Messrs. Geo. Robertson and Co., of Sydney and Melbourne, are our special agents for Australia.

CONTRIBUTORS are kindly requested to send their communications, if resident in England or the Colonies, to the Editor at the London office, 8, Henrietta Street, Strand; if resident in Ireland to the Dublin office, in order to save time in reforwarding from office to office. When sending subscriptions the same rule applies as to office; these should be addressed to the Publisher.

REPRINTS.—Reprints of articles appearing in this JOURNAL can be had at a reduced rate, providing authors give notice to the publisher or printer before the type has been distributed. This should be done when returning proofs.

MR. H. A. (Peckham).—A capital recruiting song is published by Messrs. Enoch and Sons, Great Marlborough Street, W., entitled, "The Homes They Leave Behind," by Messrs. Walter Rubens and Harold Begbie. It has a rousing and catchy air, and possesses a direct appeal. One quarter of the profits go to the Variety Artistes' Benevolent Fund, and the remainder to the National Relief Fund.

A WAR DISEASE.

"They say war starts epidemics of diseases."

"Yes. The European war started an epidemic of home sickness among travelling Americans right away."

From the *Chicago Medical Recorder*.

DR. S. I. (London, E.).—We hope to deal with the matter in an early issue.

F.R.C.S.ED. (Hants).—Authentic cases of chromidrosis are exceedingly rare. The condition is generally held to be due to some bacterial contamination of the sweat.

Meetings of the Societies, Lectures, &c.

WEDNESDAY, DECEMBER 9TH.

HUNTERIAN SOCIETY (Barbers' Hall, Monkwell Street, E.C.).—9 p.m.: Clinical and Pathological Evening. Cases and Specimens will be shown by Dr. F. Fox, Dr. T. Thompson, Mr. L. Bromley, and Mr. W. G. Ball. Dr. A. C. Jordan and Mr. R. L. M. Wallis: Demonstration Illustrative of War Injuries.

SOUTH-WEST LONDON MEDICAL SOCIETY (Bolingbroke Hospital, Wandsworth Common, S.W.).—9 p.m.: Dr. S. Dodd: Eclampsia.

THURSDAY, DECEMBER 10TH.

ROYAL SOCIETY (Burlington House, London, W.).—Papers, Mr. J. Gray, Dr. J. P. Willis.

FRIDAY, DECEMBER 11TH.

ROYAL SOCIETY OF MEDICINE (SECTION FOR THE STUDY OF DISEASE IN CHILDREN) (1 Wimpole Street, W.).—4.30 p.m.: Specimens and Cases by Dr. Erio Pritchard, Dr. J. D. Rolleston, Dr. E. B. Gunson.

ROYAL SOCIETY OF MEDICINE (CLINICAL SECTION) (1 Wimpole Street, W.).—8 p.m.: Clinical Cases by Dr Alexander Morison. Paper: Dr. A. F. Hertz and Mr. C. H. Fagge: Case of Spontaneous Gastro-enterostomy with Subsequent Perforation and Recovery after Operation.

Vacancies.

Royal Albert Edward Infirmary and Dispensary, Wigan.—Senior House Surgeon. Salary £170 per annum, with board, apartments and washing. Applications to L. E. Mapei, Acting General Superintendent and Secretary.

City of Norwich: Isolation Hospital.—Resident Medical Officer. Salary £240 per annum, with rooms, board, and washing. Applications to Dr. Pattin, M.O.H. and S.M.O., Municipal Buildings, Norwich.

Sherburn Hospital, near Durham.—Medical Officer. Salary £300 and house. Applications to H. Jepson, Bailey, Durham.

Somerset and Bath Asylum, Cotford, near Taunton.—Assistant Medical Officer. Salary £250 per annum, with furnished apartments, board, fuel, lighting, washing and attendance. Applications to the Medical Superintendent.

City of Liverpool: Infectious Diseases Hospital.—Resident Medical Officer. Salary 5 guineas per week, together with board, washing and lodging. Applications to the Chairman of the Port Sanitary and Hospitals Committee, under cover to the Town Clerk, Municipal Offices, Liverpool. (See advt.)

Stepney Tuberculosis Dispensary.—Assistant Tuberculosis Officer. Salary £250 per annum. Applications to the Hon. Sec., 35 Stepney Green, E.

County Borough of Warrington.—Assistant Medical Officer of Health. Salary £250 per annum. Applications to G. W. N. Joseph, Medical Officer of Health, Health Department, Warrington.

Clayton Hospital, Wakefield.—Senior House Surgeon. Salary £160 per annum, with board, lodging, and laundry. Applications to Arthur H. Barnes, Hon. Sec.

Certifying Factory Surgeons.—The Chief Inspector of Factories announces the following vacant appointments:—Penarth (Glamorganshire); Wymondham (Norfolk.

Galway Hospital.—Resident Medical Officer and Compounder of Medicine. Salary for both offices, £75 a year. Applications to J. J. Leonard, Acting Clerk. (See advert.)

Appointments.

BUDD, ARTHUR, M.B., B.S.Durh., Medical Officer and Public Vaccinator for the No. 7 District by the Launceston (Cornwall) Board of Guardians.

CHRISTIAN, L. DE B., M.B., C.M.Edin., Certifying Surgeon under The Factory and Workshops Act for the Hounslow District of the County of Middlesex.

DUCKETT, A. H., M.B., Ch.B.Aberd., Non-resident Medical Officer to the Bath Poor-law Union.

FARQUHAR, GEORGE G., M.B., Ch.B.Aberd., F.R.C.S.Eng., Honorary Surgeon to Darlington Hospital.

GUNNING, C. J. HOPE, M.R.C.S.Eng., L.R.C.P.Lond., Honorary Ophthalmic Surgeon at the St. Marylebone General Dispensary (temporarily).

LANGDALE-KELHAM, R. D., House Physician at University College Hospital.

Births.

BINNS.—On December 2nd, at 34, Humberstone Road, Leicester, the wife of C. C. H. Binns, M.A., M.B., of a daughter.

DARKE.—On December 1st, at The Hollies, Harpenden, to Dr. and Mrs. Sydney J. Darke, of 3, Pownall Gardens, Hounslow—a son.

GARNETT.—On Sunday, November 29th, at 2, South Street, Greenwich, the wife of Graham H. Garnett, M.D., of a son.

GEORGE.—On December 3rd, at 110, Finchley Road, Hampstead, to Dr. and Mrs. W. Stanley George—a daughter. (New Zealand paper, please copy.)

JOHNSTON.—On December 1st, at Bangalore, India, the wife of Lt.-Col. C. A. Johnston, I.M.S., of a son.

LOUGHBOROUGH.—On November 29th, at Pretoria, South Africa, the wife of A. L. Loughborough, M.R.C.S., L.R.C.P., of a daughter.

MCSHEEHY.—On November 22nd, at Wimbledon, the wife of Capt. C. W. McSheehy, R.A.M.C., of a daughter.

NICHOLLS.—On December 1st, at Wellesley Lodge, Croydon, to Dr. and Mrs. G. E. E. Nicholls—a son.

OGILVY.—On December 2nd, at Long Grove House, Epsom, the wife of David Ogilvy, M.D., of a daughter.

ROSE.—On November 24th, at Ladye Margaret Cottage, Russell Road, Hall Green, the wife of F. G. Rose, B.A., B.C., Cantab., &c., of a daughter.

SMITH.—On December 3rd, at the Red House, Virginia Water, the wife of G. W. Smith, M.B., Ch.B., temporary Lieutenant, R.A.M.C., of a son.

SCARGILL.—On December 4th, at Langlands, Cleobury Mortimer, Salop, the wife of Lionel W. K. Scargill, M.A., M.B., B.C., of a son.

Marriages.

BREWERTON : TINDALL.—On November 28th, at Christ Church, Brondesbury, N.W., Elmore Wright Brewerton, F.R.C.S., of 84, Wimpole Street, son of the late Chas. Brewerton, of Whetstone, and Mrs. Brewerton, of Stanstead Abbots, to Olive, youngest daughter of the late A. McIvor Tindall, M.R.C.S., and of Mrs. Tindall, of Market Harborough.

LAIRD : DALE.—On December 4th, at Bombay, William Balfour Laird, R.A.M.C., third son of Mr. and Mrs. John Laird, of Warren House, Orpington, Kent, to Phyllis Katherine, only daughter of Mr. and Mrs. Bernard Dale, of 71, Cottenham Park Road, Wimbledon. (By cable.)

SKINNER : BENEY.—On December 2nd, at Hong-Kong, Alexander Hugh Skinner, M.D., only son of the late Alexander Skinner, M.A., of Auckland, N.Z., and Keith, N.B., to Winifred Mary, second daughter of W. A. Beney, J.P., of Beckenham.

Deaths.

COCKCROFT.—On November 25th, at Trehafod, South Wales, Dr. William Lawson Cockcroft, aged 42.

JENNINGS.—On November 23rd, suddenly, at Ramsgate, William Oscar Jennings, M.D. (Paris), M.R.C.S. (Eng.), of 57, Carlisle Mansions, Westminster, aged 63. Continental and Colonial papers, please copy.

MORTON.—On December 1st, suddenly, Albert S. Morton, M.D., M.R.C.S., of 63, Mexfield Road, East Putney.

NIX.—On November 26th, in H.M.S. "Bulwark," Pervical Kent Nix, B.A., M.B., Fleet Surgeon, Royal Navy, aged 44, younger son of the late John Nix, J.P., of The Limes, Chatteris, Isle of Ely.

POLLARD.—On November 22nd, at Cape Town, aged 32, Arthur Haig Pollard, M.R.C.S., dearly-loved youngest son of the late Frederick Pollard, M.D., and of Mrs. Pollard, late of Bournemouth.

SCOTT.—On December 1st, at 28, St. Aubyns, Hove, Edward Irwin Scott, M.D., in his 68th year.

TAYLOR.—On December 2nd, at 180, Kennington Park Road, S.E., Herbert Taylor, M.B.Lond., aged 64.

THE MEDICAL PRESS AND CIRCULAR.

"SALUS POPULI SUPREMA LEX"

VOL. CXLIX. WEDNESDAY, DECEMBER 16, 1914. No. 25.

NOTES AND COMMENTS.

The Belgian Medical Relief Fund. FUNDS are still coming in satisfactorily for the relief of the Belgian medical men and pharmacists. A week ago Professor Jacobs gave an address to the Edinburgh Obstetrical Society. Prior to the meeting Dr. Jacobs was the guest of the evening at a dinner given by the President, Sir Halliday Croom. As an immediate result, the meeting subscribed in the room one hundred guineas, which was then and there handed over to Dr. Jacobs. This gift, it should be clearly understood, has nothing to do with the fund organised by the Royal Colleges of Surgeons and Physicians of Edinburgh, which will be raised from the medical profession and from other sources. It was an absolutely spontaneous gift, to be administered in the way that seemed best to Professor Jacobs himself. Unconditional help of this kind is likely to be of special value at a time of financial stress and ruin such as that to which at least 1,000 Belgian medical men and 500 pharmacists are now being subjected. We cannot but think that the central fund will do well to adopt a similar principle with a view to the relief of immediate needs. The Central Committee, which is still described as "provisional" by the *British Medical Journal*, did not hesitate in the first few days of its existence to earmark 2,000 packages of drugs at £5 each for the Belgian doctors and pharmacists. Another £10,000 might well be earmarked for distribution in grants of money, but the point has doubtless been considered by the Committee. It is to be hoped that body will carefully consider our suggestion that it would be well to apply to Government for an adequate loan for this special national relief, as it is unlikely a sufficient sum will be forthcoming from private sources.

Typhoid in the Belgian Army. THERE appears to be some likelihood in the statement that a serious outbreak of enteric fever has occurred among the Germans in Flanders. They are fighting in a district that is waterlogged, and therefore favourable to the spread of a water-borne malady, while it is difficult to treat a large number of sick troops in a hostile country. A certain proportion of the German cases will come as prisoners into our own hospitals, while convalescents will for some time to come (and here and there permanently) become centres for the spread of the disease far and wide. It is not easy to gauge facts at all accurately in the face of conflicting or contradictory reports from the seat of war. For instance, the official contradictions of the existence of enteric fever on a large scale in the Belgian army is hardly consonant with the fact that the British Red Cross Society and the Order of St. John recently sent an advance of £10,000 for the assistance of Belgian soldiers at Calais suffering from that malady. This grant appears to be both wise and humane, and indicates a generous policy on the part of the British Red Cross Society.

Why not a Free Nurse's Kit? AT the same time it may be perhaps permitted to pass a small criticism on the fact that the British Red Cross nurses are required to provide their own outfit at an expenditure of from £6 to £8. As a general rule, it may be assumed that the average trained nurse is not able to find £6 or £8 at short notice. If the Red Cross, or any other organisation, wish to maintain an adequate supply of trained and trustworthy nurses at the seat of war, they will have to treat their nurses on a financial basis that compares favourably with what would be earned at home. In Calais, we believe, there is a lack of skilled nursing, and it is certain that in some of the Belgian hospitals there is not only inadequacy in point of numbers, but also as regards proper nursing qualification. Under these circumstances, the British Red Cross might have availed itself of the services of some of the long array of fully-trained nurses which, we gather from various sources, is on its waiting list. Indeed, it may be doubted whether the Society has made the most of the proffered services either of medical or of nursing volunteers. The work achieved by the British Red Cross Society, however, is of an arduous and extremely difficult and complicated nature, and they have performed wonders in the face of great obstacles. It is more than probable, indeed, that there is more than sufficient ground for its policy in various matters that are apt to be misjudged by the outside public.

War Office and Territorial Nurses. THERE is another class of nurse engaged in military nursing to whom (if our information be correct) the grievance of supplying their own outfit applies. The Regular Army nurse is engaged on a permanent footing, and a free outfit is provided. The Territorial Force, however, comes under different regulations, and no grant is made towards the cost of necessary outfit. A nurse, therefore, joining that branch of the service, incurs an outlay of some £8 for that purpose. The War Office should see to it that this small grievance is at once removed. The nation has poured out money like water for war purposes, and there can be no excuse for paltry economy in the case of military nurses, who have come forward in a time of national crisis to undertake work which is beset with discomforts, hardships and risks of various kinds, and which, moreover, often involves the sacrifice of an easier and better-paid occupation. Of all sorts and conditions of folk who are helping in our great fight there is none more deserving of generous treatment and careful solicitude than the nurses, whether salaried or voluntary, whether trained or untrained, whether lay or military: their service in all capacities represents a high ideal of lovingkindness.

Medical Men as Prisoners of War. The general principle that officers of the Royal Army Medical Corps and civil medical men who accept posts under the various Red Cross Societies for tending the sick and wounded are, of necessity, non-combatants, has usually been accepted as an axiom of modern warfare. In every hospital for wounded soldiers, staffed by British officers, no distinction is made between our own men and those of the enemy; all alike receive the best available treatment. To detain a medical officer or Red Cross man as a prisoner of war is a short-sighted policy, as well as contravening the principles laid down by the Geneva Convention. A wounded soldier, or one stricken by typhoid or pneumonia, should not be deprived of the best help that modern science can give him, and, other things being equal, he will make best progress by being attended by one of his own nationality. The common cause of humanity is outraged by the senseless practice of tying the hands of medical men, so to speak, and rendering their skilled services of no avail. We understand that the Geneva International Red Cross Association has been in correspondence with the German Red Cross upon the point of the alleged refusal of the German authorities to release British Red Cross surgeons and ambulance men. German Red Cross men have been sent back to their own country from France, and, so far as we are aware, none is detained in this country. It is to be hoped that sufficient pressure may be brought to bear upon the German military authorities so that British medical men who are prisoners of war may be speedily set free in order to carry out their beneficent task.

The Medical Roll of Honour. There are no deaths, happily, to report this week among officers of the Royal Army Medical Corps. We have to record the names of two wounded officers—Lieut. J. P. Charnock, R.A.M.C., and Capt. G. H. Stack, R.A.M.C. The following officers not previously reported as prisoners are now reported, through the United States Embassy, to be prisoners of war: Capt. C. T. Edmunds, R.A.M.C., Capt. F. J. Garland, R.A.M.C., Lieut. J. R. Hayman, R.A.M.C., Capt. E. M. Middleton, R.A.M.C., Capt. A. M. Pollard, R.A.M.C., Lieut. W. A. Russell, R.A.M.C., and Major A. G. Thompson, R.A.M.C. Lieut. T. E. Hepper, R.A.M.C., is unofficially reported as prisoner of war.

LEADING ARTICLES.

THE STATE IN RELATION TO APPLIED SCIENCE.

There is reason to believe that the effects of the great European war will show themselves in various important socio-economic directions. In some cases results will be direct and obvious, whilst in others they will be more or less remote and at times revolutionary as regards preconceived ideas and practice. The sudden outburst of patriotism that has arisen throughout the British Empire points to an underlying national quality that approaches somewhat closely the ideal of the higher form of collectivism. It seems likely that amongst these changes the relations of the State to science generally will undergo a considerable revision. In a rapidly progressive civilisation the monetary value of scientific discovery has become more and more apparent. That fact could hardly be more aptly illustrated than by considering the advanced science of the present war, with its mechanical propulsion in the air, on the surface of earth and sea, and beneath the sea itself; with its high explosives, its quick-firing guns of enormous range and accuracy—in a word, with a vast armamentarium derived from many fields of intellectual activity. In military matters it is clear that the State must keep in close touch with scientific advances in order to hold a position secure amid the armed camps of the world. Nor is it less necessary for her to maintain a similar vigilance with regard to her commercial prosperity. Hitherto it has been the custom of our Governments, with perhaps a few trivial and unimportant exceptions, to leave science severely alone. The scientific investigator has had too often to find in virtue his sole reward, and he has for the most part been left to sink or swim as Providence and his own genius might direct. The plea for the endowment of science has not yet found an active response from any British Government. This attitude, fortunately, is not that of positive rejection, and we may hope that some day our rulers will recognise the fact that the endowment of science offers a sound investment of national capital in the interests of Imperial finance. Whatever views we may hold as to the ethical standards of Germany as a nation, it must be admitted that she has shown the supreme value of endowed science as a national asset A familiar illustration is that of the aniline dyes, which, discovered many years ago by an Englishman, were fostered by the German Government and gradually developed into a huge industry of world-wide range. The vicissitudes of war, with fateful irony, have deprived us of our regular supply of German dye-stuffs, so that the English woollen manufacturers find it increasing difficult to obtain the khaki tint which experience shows is best fitted to elude the marksmanship of an enemy in the field. But the important part played by the aniline dyes in arts and commerce is by no means finished, and, as it turns out, there is a prospect that the industry may be restored to the country of its origin. The outbreak of war has so far dissolved the obligation of patent rights that it is open for English manufacturers to work German patents with Government sanction. Under these circumstances it was natural that a commercial company should be at once formed to manufacture aniline dyes, and this has been done. The occasion, moreover, has been marked by a new State departure of the highest significance. It has been announced that the

Government will guarantee a certain rate of interest on the capital invested in the aniline company. This step takes us nearer State endowment and State industrialism than anything else with which we are acquainted. If it be right for the Government to endow this particular branch of industry in the interests of the nation, it can hardly be wrong for it to guarantee the financial position of any other business founded on similarly promising scientific basis. In any case the history of the rise and progress of the aniline dye industry has become extended into an object lesson of great value to all students of political economy, as well as to the large and increasing number of those who advocate the advantages of the State endowment of scientific research.

CURRENT TOPICS.

The War Office and Voluntary Hospitals in Ireland.

An unpleasant crux has arisen in the relations between the War Office and the several voluntary hospitals in Ireland in which wounded soldiers are being treated. At the beginning of the war the various hospitals were invited to undertake the treatment of wounded soldiers. They responded cordially, placing as many beds as possible at the disposal of the military authorities. The Government pays a rate per head per day for maintenance, and the treatment is supplied voluntarily and gratuitously by the visiting staffs. It is unnecessary to add that while this has thrown a considerable amount of work on the shoulders of the surgeons of the various hospitals, it has placed at the service of the wounded soldiers the highest surgical skill of the country. Unfortunately, the War Office has recently issued to the various hospitals a circular which, unless it be at once recalled, must put an end to the co-operation of the honorary staffs of the hospitals. We announced last week the appointment of two eminent Dublin surgeons as consulting surgeons for the troops in Ireland. We are sure that the co-operation of these gentlemen as consultants will be generally welcomed by their surgical brethren. Unfortunately, however, the circular, which notifies the various hospitals of the appointment of Sir Charles Ball and Sir Thomas Myles, makes it clear that the duties sought to be imposed on these gentlemen are far beyond those ordinarily performed by a consultant. They are to visit all official and voluntary institutions where soldiers are being treated, "to ensure that the best possible surgical assistance is being afforded." They are to represent shortcomings, whether on the part of individuals or in matters of store or equipment. "In case of urgency they will take such steps as the occasion demands." "They will operate themselves in cases in which they consider such a course desirable, and will advise others engaged in operative work," and they are to exercise a general supervision over surgical work. We do not suppose for a moment that either of the consulting surgeons would exercise the powers given to them, but it is equally obvious that they are powers which cannot be tolerated by those who are sought to be subjected to them. The visiting surgeons of the various hospitals are tending the wounded voluntarily and gratuitously, and they cannot in their hospital work subject their responsibility to that of others, no matter how eminent. Even were they willing to do so, they have not, in most hospitals, the power to permit visitors to operate. Several hospitals have already notified the War Office of their inability to accept the terms of the circular. A difficulty also arises as to the staffing of the Red Cross Hospital about to be established in Dublin Castle. Like other voluntary institutions, it will be subject to the extraordinary powers of the consulting surgeons. Its staff is to be formed by surgeons and physicians of the several Dublin hospitals, nominated each by his own colleagues. Some of the hospitals, while anxious to co-operate cordially in the working of the Castle Hospital, find themselves unable, in the face of the War Office circular, to nominate any members of their staffs. We trust that this matter will be speedily set right. The War Office could, after five minutes' consultation with its consulting surgeons, issue a letter which would abolish all cause of offence, and ensure the continuance of the patriotic assistance of the civil profession in the treatment of wounded soldiers. As matters stand, conditions are laid lown to which no self-respecting independent surgeon can submit, and powers are conferred on two honourable members of the profession which they would never attempt to put into practice. It would be deplorable if, through any mere blundering or misunderstanding, the wounded soldiers were to be debarred from receiving the best surgical treatment, given, as it is, freely and cordially.

Retirement of Lord Aberdeen.

The resignation by the Earl of Aberdeen of the Viceroyalty of Ireland is of greater interest to the medical profession of Ireland than are most changes of the sort. During the nine years that Lord Aberdeen has held office, he and Lady Aberdeen have taken an extraordinarily active interest in all matters affecting the health of the country. Lady Aberdeen, through the medium of the Women's National Health Association, inaugurated a popular health campaign, first against tuberculosis, and, later, against the diseases of infants. This campaign is already bearing fruits in a diminished death-rate from tuberculosis. We have sometimes had to criticise some of the methods adopted by the Association, but we have always recognised its excellent intentions, and the indefatigable zeal of Lady Aberdeen. Not the least of the good effects of the direction of the interests of the Lord Lieutenant and Lady Aberdeen toward health matters was the stimulation to some extent of the conscience of the public departments of the Irish Government, whose duties have to do with the preservation of the health of the community.

The New "King George Hospital" at Waterloo.

The list of buildings, both public and private, originally designed for other than military purposes, that have been converted into temporary hospitals for the sick and wounded, continues to grow apace. Among the latest of these is the spacious edifice in Stamford Street, Waterloo, erected as the new Government Stationery Offices. In a short time, as soon as the necessary structural alterations and equipment are complete, the premises will be known as the "King George Hospital," and it will have accommodation for 1,650 beds. The following list of consultants for this, the latest and largest Red Cross institution, has been published:—Sir Thomas Barlow, Bt., K.C.V.O., President of the Royal College of Physicians; Dr. Mitchell Bruce, Consulting Physician to Charing Cross Hospital; Sir Watson Cheyne, Bt., President of the Royal College of Surgeons; Sir Bertrand Dawson, K.C.V.O., Physician to the London Hospital; Sir H. Bryan Donkin, Consulting Physician to Westminster Hospital; Sir Dyce Duckworth, Bt., Consulting Physician to St. Bartholomew's Hospital; Sir Rickman Godlee, Bt., Consulting Surgeon to University College Hospital; Sir James Goodhart, Bt., Consulting Physician to Guy's Hospital; Mr. J. Warrington Haward, Consulting Surgeon to St. George's Hospital; Sir Henry Morris, Bt., Consulting Surgeon to Middlesex Hospital; Mr. Edmund Owen, Consulting Surgeon to St. Mary's Hospital; and Sir Seymour Sharkey, Consulting Physician to St. Thomas's Hospital. It is announced that a further list of medical men who have undertaken the care of the patients in the wards will shortly be issued.

Window Dressing.

The practice of medicine is generally dignified with the style and title of a profession. Usually the nomenclature is justified. It is true that, in some of our larger aggregates of humanity, where patients are multitudinous and fees microscopic, the professional element is in some danger of being swamped by the purely commercial. We have known for long that knowledge and skill are not the only qualifications for successful practice, and that the personal factor looms large as a contributor to the success or otherwise of the practitioner. For all that, we were unaware of the heights to which the science of salesmanship has attained amongst us. We have seen a booklet issued to the profession which advertises a correspondence course on medical tactics and therapeutics. The latter part is not of present interest; most of us have learnt, at any rate, some therapeutics at one time or another. The "medical tactics" part is a godsend. It is full of courage. We are told that "The position may be set forth in the following propositions.—A. Skill.—This, divorced from the other factors, has little value. B. The Other Factors.—These if combined with a little of A, have considerable value." This is the keynote—window dressing carried to a fine art, and a show made with or without material. The syllabus tells us we are to be instructed in such things as "Gratitude, how aroused. A golden rule." "The sixteen impressions to be made in ordinary cases." "A case where the doctor should show incredulity. The single case where it is judicious to laugh at a patient." And many more like unto these. We wonder if such information is really valuable, if through studying the salesman side failure can be turned to success. We are afraid it can. We know men whose position is certainly not commensurate with their sterling qualities and undoubted skill, and we know men whose methods are sheer bluff. They are not in the majority. As a rule skill will out sooner or later, though it often takes years to live down a bad manner. For all that, we do not believe that any systematised method of gulling the public will pay in the long run, and we are glad to think so. Skill, knowledge and honourable living will still carry a man farther than any such dubious methods.

The Working Hours of Medical Students.

"How many hours a day can a medical student work without injury to health?" is a question which can never be answered definitely, since the circumstances affecting mental capacity and environment vary so greatly in different cases. Some men can "grind" away at a text-book for hours at a stretch without feeling any the worse, whilst others are compelled to change their subject of study every hour. The influence of early training upon a man's work at college or hospital is considerable, for many a student has cause to thank his former master or teacher for inculcating in him the habit of concentration, for instance, without which the best efforts are futile. British students of medicine are more fortunate, apparently, than their American colleagues, many of whom are compelled to support themselves during the curriculum by working in an office, upon a car, or at some trade. The Emeritus Dean of the Bennett Medical College, Chicago, Dr. William F. Waugh, has called attention in the *Medical Record* to the great load which the students bear at some of the training schools in the States. Thus, out of 443 students in one year about two-fifths are stated to have worked during term time to earn their expenses, in addition to attending college for an average of forty-four hours a week. Every member of a class of forty-eight men just up for their final examination was written to by Dr. Waugh last year requesting information respecting their own cases. A large proportion of these said that they had studied about eighteen hours a week, and given forty-two to some kind of independent productive work. More than half complained of strain; some took coffee and other stimulants, a few alcohol, and a smaller number were addicted to drugs. The man who is obliged to earn his living while attending the modern medical school must calculate his chances of success with great circumspection, and order his life as far as possible so as to preserve his physical and mental powers in the best condition.

Yellow Fever in British West Africa.

Though the specific germ of yellow fever has not yet been discovered there is some reason to suppose that it is due to an ultramicroscopic virus which is capable of transmission by the *Stegomyia fasciata*. The Yellow Fever Commission (West Africa), appointed some time ago to investigate the disease in British West Africa, has recently issued its first and second reports. At Lagos an interesting research has been in progress upon the relationship of the so-called "Seidelin bodies" to the virus of yellow fever, and it is hoped that a further report upon this investigation will be published at a later date. Among the conclusions already arrived at by the Commission, it is asserted that there is no evidence to show that the infection in each outbreak of fever has been introduced from outside Africa. The mild character of the attack in some cases of yellow fever adds greatly to the difficulty of the identification of the disease, and this clinical feature is met with, of course, in many other acute infections. It is hoped that workers upon the subject will endeavour to concentrate their attention upon the possibility of discovering some clinical test for the presence of yellow fever that would give as useful results as, say, the Wassermann test. The Commission is further of the opinion that the only hope of eradicating the disease is by boldly facing the facts and not by attempting to conceal its presence in a locality. Meanwhile the work of the West African Medical Staff and of those members of the expedition from the Liverpool School of Tropical Medicine to British territory in the continent of West Africa may be commended to those who have the physical welfare of our colonies there at heart.

Science the Iconoclast.

The world goes round and we progress. This is an age of progress—we are always told so and we must believe it, or our life would be made unbearable. We can seek refuge ourselves and satisfaction for such consciences as remain to us in the fact, that progress in its ubiquitous sense has never been defined. It probably means going away from a point in order that we may triumphantly return to it at a later date. Anyway, we have a change. We shatter brazen idols and uncover their clayey feet, and then try and amalgamate the brass and silica into a less enduring image of a handsomer shape. The taboos of to-day are the decalogue of the day after to-morrow. We used to avoid colds by wonderful respirators and the superimposition of many wraps. Now we indulge in such fresh air as the inspector of nuisances allows us, and wear the minimum of clothes permitted by the police. This, too, to avoid rheums and fluxes. Calomel used to stir up the liver to further efforts and promote the flow of bile. To-day's physiologists tell us that, whatever it is, it is not a cholagogue. We shudder and nauseate ourselves by reading about the mixtures of offal and excreta contained in early prescriptions, and we inject very similar substances into our defenceless patients to-day as the very latest treatment. The fashion changes even for water. We have heard many a time and oft that water with meals was anathema—it diluted the digestive juices and was a general hindrance. This seed fell upon good ground, till now many men claim that the internal use of the fluid should be prohibited unless on medical prescription. Now we hear that it is harmless or actually beneficial. Instead of an inert diluent, water is a gastric stimulant, and may be drunk almost with impunity. The ways of science are very wonderful. Discovery succeeds discovery, and we go round and round till we are dizzy for the sake of progress. When will it stop?

The Debt of Science to Edison.

The news of the destruction by fire of Mr. Thos. Edison's famous works at West Orange, New Jersey, will be received with grief and dismay by the world of industry and invention. Fortunately the inventor's private laboratory was saved, but the total damage is estimated at one million pounds. With cheery optimism Mr. Edison has declared his intention of rebuilding the works immediately. In these days of universal electric light and telephones it is difficult sometimes to realise that these adaptations of science to everybody's life owe their existence to one man, the inventions of whose fertile brain would occupy many columns of this journal. Edison's work in connection with electrical, photographic, and acoustic apparatus alone, besides having benefited countless thousands of the human race, has proved a priceless boon to the medical profession. Of the value of his electric submarine torpedo boat there is now abundant evidence. The phonograph and the cinematograph have proved themselves to be of real service in the teaching of practical medicine. It may not be generally known that tetrethyl ammonium hydrate, once in vogue as a solvent for uric acid, was introduced into therapeutics as the result of a chemical experiment by the great inventor. The huge laboratory at Orange was a veritable hive of scientific industry and organisation. Able to command sleep at will, and to work for long periods without any pause or sustenance, Mr. Edison is a marvel of energy and a living testimony to the fact that hard work is a blessing. We sincerely trust that the works may soon be re-established and that their distinguished chief will not have suffered to any serious extent in consequence of the temporary set-back which he has had the misfortune to sustain.

PERSONAL.

H.M. the King has been graciously pleased to approve of the appointment of the undermentioned Medical Officers to be Companions of the Distinguished Service Order, in recognition of their services with the Expeditionary Force, specified below:—

Lieutenant Henry Beddingfield, M.B., R.A.M.C.—For coolness and daring in repeatedly superintending removal of wounded from the firing line under heavy fire.

Major Sidney George Butler, R.A.M.C.—At Missy on September 15th. For coolness and courage in continuing all day to collect wounded, under severe shell fire.

Captain Malcolm Leckie, R.A.M.C. (deceased).—For gallant conduct and exceptional devotion to duty in attending to the wounded at Frameries, where he was himself wounded.

Dr. Hans Gilliland, M.B.Edin., has been appointed Medical Superintendent of the Whiteabbey Sanatorium, Belfast.

Mr. Andrew Croll, M.D.Edin., F.R.C.S., of Saskatoon, Canada, has been elected a Fellow of the American College of Surgeons.

Dr. W. T. Edwards, J.P., of Cardiff, was the recipient of many congratulations last week upon the occasion of his ninety-third birthday.

Dr. Evan Richards, M.B., Ch.B.Edin., has been appointed Medical Inspector of Schools to the Glamorgan County Education Committee.

Dr. William MacAdam, M.A., M.D., B.Sc.Glasg., D.P.H.Camb., has been appointed Demonstrator in Public Health in the University of Sheffield.

Sir Watson Cheyne, P.R.C.S.Eng., will deliver the Hunterian Oration before the Royal College of Surgeons of England on February 15th, 1915.

Dr. C. M. Hinds Howell, M.D., has been elected an examiner in physiology for the second examination of the Conjoint Examining Board of England.

Dr. M. S. Pembrey, M.D., has been appointed an internal examiner in physiology for the second examination for medical degrees of the University of London.

Dr. James Donelan has been appointed Medical Referee to the Committee of the French Red Cross in London to act in respect of the acceptance of medical men for service in France.

Dr. G. Newton Pitt, M.D., F.R.C.P.Lond., has been elected a Censor of the Royal College of Physicians of London in the place of Sir Wilmot Herringham, M.D., resigned, owing to his absence with the Forces on the Continent.

Dr. Alfred H. Gosse, M.A., M.D.Cantab, M.R.C.P.Lond., of the London Hospital Medical College, has been awarded the Paul Philip Reitlinger Prize of the University of London for his essay on "The Heart in Acute Rheumatism, with special reference to Graphic Methods of Investigation." This prize, which is of the value of £40, was founded by Mr Reitlinger in memory of his son, a student of St. George's Hospital, who died in 1911.

CLINICAL LECTURE
ON
ANTE-NATAL SYPHILIS. (*a*)

By HENRY RUSSELL ANDREWS, M.D., B.S.Lond., F.R.C.P.Lond.,

Obstetric Physician to the London Hospital, &c.

The Syphilitic Mother.

Some of the old-established and accepted views regarding the presence or absence of maternal syphilis have to be reconsidered in the light of recent evidence afforded by Wassermann's reaction, and we must admit that there is at present a good deal of difference of opinion. It used to be considered that if the father was suffering from syphilis, the mother might not herself be infected, although she might give birth to syphilitic children, and that, according to Colles' Law such a mother could suckle her own infant without being infected by it, although any other non-syphilitic woman who suckled the child would be likely to become infected. The more modern view is that without maternal syphilis there is no fœtal syphilis; in other words, that every mother who gives birth to a syphilitic child is herself infected. A woman may live for years with a syphilitic man without showing any signs of syphilis until she becomes pregnant. If a woman is impregnated by a man who has had syphilis, but who has no local infective lesions when impregnation takes place, she may show no signs of syphilis herself, but may produce a syphilitic infant and may herself give a positive Wassermann reaction. This last fact may be taken as a proof that she is suffering from latent syphilis, but Whitridge Williams suggests that the positive reaction may be due to the transmission of antibodies through the placenta, and not necessarily to the presence of living spirochætes in the mother. "Conceptional syphilis" and "choc de retour" are terms used to imply that a woman who has shown no signs of primary syphilis has become infected by the fœtus in utero. McDonagh discovered intracellular parasitic spores which may account for the occurrence of what is called "conceptional syphilis." The spirochæte itself is too large to be carried in a spermatozoon, although it might be carried in the seminal fluid, but it is possible that some of these spores might be so carried and infect the ovum without infecting the mother. It is at present impossible to say whether our ideas about Colles' Law must undergo modification or not. Knöppelmacher and Lehndorff (quoted by Dr. Beckwith Whitehouse) have found that 90 per cent. of mothers of syphilitic children give a positive Wassermann reaction a few months after parturition. However, C. F. Marshall holds that transmission of syphilis from the father to the child is possible without the mother suffering from the disease, and lays stress on the absence of secondary symptoms in the mother of a syphilitic child. He argues that a woman may bear a syphilitic child to a syphilitic father, and that her later children born to a second, non-syphilitic husband are not syphilitic, and that after a series of syphilitic children a healthy child may be born when the father alone has had treatment by mercury. However, what is known as alternating transmission, *i.e.*, the birth of healthy children preceded and followed by syphilitic children of the same parentage has long been recognised. It has been said that if a woman is infected during the later months of pregnancy the child will escape, but the late Sir Jonathan Hutchinson recorded cases in which the mother was infected during the last few weeks and yet the child also was infected. If the mother has latent syphilis she may bear healthy and syphilitic children alternately; of twins one may be infected while the other escapes. It is important to remember that the fact that a child born of syphilitic parents does not show signs of syphilis during the first few years of life cannot be taken as proof that it has not been infected, for such children sometimes break down at puberty or even later with general paralysis or some other form of syphilitic lesion.

Local manifestations may be more severe in a pregnant than in a non-pregnant woman because of the hyperæmia of the genitals and the surrounding tissues. The constitutional disease is often, if not usually, mild, and secondary lesions may not be much marked except on the vulva, vagina, pubes, and inner side of the thighs. In these situations there may be large elevated areas which occasionally undergo ulceration, and there may be abscess formation and extensive sloughing.

It has been considered that if infection and conception occur at approximately the same time abortion usually results, but recently acquired evidence throws doubt on this.

If treatment be begun early enough, and with sufficient energy, in a syphilitic woman who is pregnant it is probable that the child may escape infection. It seems that if the pregnant woman is treated by salvarsan followed by mercury, there is more likelihood of the child escaping the infection than if the woman is treated by mercury alone. McDonagh says that if salvarsan be given before secondary symptoms appear in a woman infected during pregnancy, the child escapes infection. Salvarsan injected into a mother who has just produced a syphilitic child does not seem to have any permanent beneficial effect on the child through the medium of the milk. One case was reported, by Taege, in which it was believed that the administration of salvarsan to a nursing mother had been successful in curing the child. Ascheim reports a case in which administration of salvarsan to the mother, who gave a positive Wassermann reaction, was quickly followed by a disappearance of the skin lesions in the child. As in Taege's case, there was no arsenic in the milk, and the benefit was attributed to the transmission of antitoxins. About six weeks afterwards, however, the skin lesions reappeared as badly as ever and the child's health became

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(*a*) A lecture delivered at the London Hospital, Friday, March 20th, 1914.

seriously impaired. Ascheim records this case as a warning against the possibility of being deceived by the temporary improvement in the state of the child.

Occurrence of repeated miscarriages or the birth of stillborn children without other obvious cause should always arouse suspicion that syphilis is present. Without Wassermann's reaction it is extremely difficult to get proof that syphilis was the cause of miscarriages or still-births. Most women, at any rate among the poorer classes, say that they have had a bad sore throat, and that at some time they lost a great deal of their hair, and in the absence of a history of a secondary eruption the information received in answer to questions is, as a rule, valueless. Both husband and wife, if Wassermann's reaction is positive, must be given a thorough course of treatment, of salvarsan and mercury, or of mercury alone. Formerly it was sometimes the custom to treat the father only, as the mother showed no sign of syphilis, but there is no doubt, whatever view is held, whether Colles' Law is true or not, whether the mother may be infected by the fœtus through the placenta, or the fœtus infected by the mother through the placenta, that it is essential to give antisyphilitic treatment to every woman who has given birth to a syphilitic child. To be on the safe side it is well to give the wife mercury during her next pregnancy. Personally, I should give her mercury in a subsequent pregnancy even if the first child born after the thorough course of treatment proved to be healthy. Some authorities advise iron and chlorate of potash rather than mercury if she becomes pregnant after an efficient course of anti-syphilitic treatment, but personally I prefer to give iron and mercury, reserving chlorate of potash for cases of unexplained death of the fœtus in utero. Pinard insists on the importance of "retreatment" during a subsequent pregnancy of a woman who has been thoroughly treated before. He quotes a case of a syphilitic woman treated for eight years, who bore six healthy children and yet produced a seventh child presenting all the lesions of syphilis and dying two months after birth. The theory that the virus of syphilis wears out gradually must go—we must do our best to leave no spirochæta lurking in a hidden lair. Pinard's advice is that both husband and wife should be "retreated" before they can be advised to allow another pregnancy to occur, and the wife must be treated throughout every pregnancy.

It is possible that some cases of chronic metritis, with fibrosis and periarteritis and endarteritis, resembling syphilitic changes in other organs, are due to syphilis, as has been suggested recently by Dr. Louise McIlroy and Dr. Beckwith Whitehouse. The latter found that six out of fifteen cases of chronic metritis or fibrosis uteri in patients with no definite history of syphilis gave a positive Wassermann reaction. It cannot at present be taken as proved that these changes in the uterine wall are due to syphilis—if they are they may be the cause of some of the abortions which are so common in syphilitic women.

Some results of routine examination by Wassermann's reaction are rather startling. Miss Louise McIlroy took 100 out-patients suffering from various gynæcological troubles, obvious cases of syphilis being excluded, and found that no less than 53 out of the 100 showed a positive Wassermann reaction.

I am indebted to a lecture on Ante-natal Hygiene, by Dr. Amand Routh, published in the *British Medical Journal*, February 14th, 1914, for some of the information which I have quoted above.

THE SYPHILITIC FŒTUS.

If the mother is infected with syphilis at the time that conception occurs—*i.e.*, if infection and conception occur at the same time, abortion usually results. At least, this view has been held generally. Abortion is common at three months, and also in later months. If it occurs at five months or later the fœtus is often macerated, with the skin peeling off. If syphilis affects the fœtus it almost invariably causes death, for it is extremely rare for an infant to be born alive showing signs of syphilis at birth. The fact that a stillborn fœtus is peeling is not of itself proof of syphilis, for maceration and peeling may occur in a fœtus which has died in utero from any cause and has been retained for several days or longer before being expelled. However, Tissier found evidence of the presence of syphilis in 99 out of 155 macerated fœtuses, and Boissard found that 95 per cent. of all macerated fœtuses were syphilitic. There is no evidence as to any difference in the effect of syphilis on the fœtus or infant whether infection is due to syphilis in the father, in the mother before conception, or acquired by the mother after conception, though it is said that virulent congenital syphilis showing itself in the early weeks of life is more often due to maternal than to paternal syphilis. At whatever period of pregnancy a woman acquires syphilis, if only time be allowed for the development of the disease, there is a great probability that it will pass from her to the fœtus. In some cases when a succession of children suffers the youngest may suffer as severely as the eldest, but in the majority of cases the danger of the infection of the fœtus diminishes with the progress of years. What is known as "intermittent transmission" may occur—*i.e.*, there may be one or more children, scattered throughout a family, who remain healthy, having escaped infection in some unexplained way, though the other members show evidence of congenital syphilis, early or late. As a rule, if the parents are suffering from tertiary syphilis there is no transmission, but sometimes the mother may transmit syphilis to her offspring when she is suffering only from tertiary syphilis. It is said that the child may be infected during birth. Nearly 50 per cent. of syphilitic fœtuses are stillborn. Of syphilitic children born alive 75 per cent. die within the first year, most of them during the first few weeks of life, an appalling waste of human life due to a preventable cause. The child may very rarely if ever be born alive showing well-marked syphilitic lesions, puny, ill-nourished, with a shrivelled appearance, blue extremities, and a hoarse feeble cry, but it is much more common for the fœtus which is not stillborn to continue healthy during intrauterine life, and to be born with a clear skin and apparently in perfect health. If born apparently healthy, it will probably show signs of congenital syphilis between the first and twelfth weeks of life. Peeling patches on the palms and soles may be seen during very early infancy, and occasionally syphilitic pemphigus may come on within a day or two of birth. If the eruption is severe the child will probably die. The changes that take place within the first few weeks of life in a syphilitic child, who appeared to be healthy at birth, are that it wastes, the skin—which is wrinkled—becomes of a dull, earthy colour, and there is marked anæmia. The face assumes a care-worn, weary expression, so that the child is described as looking like a "little old man." It sometimes has very much the appearance of a dispirited monkey. Pemphigus, snuffles, cracks at the angles of the mouth which may be of sufficient severity to prevent the infant sucking, condylomata round the anus, a copper-coloured rash on the buttocks and back, and jaundice may be noticed. The general health suffers much more than is usual in acquired syphilis, and death not uncommonly results. It is a noteworthy fact, if it be true that infection occurs during birth from rubbing of the child's skin against the mother's passages, that primary lesions are very rare in cases of congenital syphilis.

Finger collected in all six cases in which the mothers showed at the time of confinement eruptions and condylomata on the genital organs, and the children developed, after the usual interval, primary lesions with enlargement of glands, and later on secondary rashes. Haslund reported a case in which an infant who had been delivered by forceps showed at the age of five weeks seven indurated ulcers on the face, with hard swelling in the neighbouring lymphatic glands. Spirochætæ were found in the secretion from the ulcers. The child showed at that time no other symptoms of syphilis except that there was some coryza. Later there was a bilateral suppurative otitis and a slight rash on the back. The mother had a syphilitic rash and a mucous plaque on one labium. Before her confinement she had had no signs of syphilis except headache and loss of hair, the skin lesions appearing after the confinement. Haslund suggests that in this case the skin of the face was damaged by the blades of the forceps, affording a raw surface suitable for infection.

A "law" of which not much is heard now was the "law of Profeta," which held that syphilitic parents communicate to their children who are apparently healthy, an immunity which renders them for some time at least inaccessible to infection by syphilis. Is not this another way of saying that cases of congenital syphilis are not always virulent and well marked by symptoms in early life, but may be latent for some years?

One is tempted to adopt the belief that if a fœtus is affected by syphilis during intrauterine life it is born dead, and that cases of "congenital syphilis" are really cases of infection at birth. An argument against this theory, as I said before, is the fact that primary lesions are so rarely found in infants unless they are due to quite unusual methods of infection after birth, but it must be remembered that there are a very great many syphilitic women in whom no primary lesion can be found.

The modern treatment of congenital syphilis is by injection of salvarsan followed by administration of mercury for two years. Some writers advise that salvarsan should not be used in the treatment of infants because its effect may mask symptoms to such an extent that there is a danger that mercurial treatment may be more or less neglected, with disastrous results later on.

The lesions that may be found in stillborn syphilitic fœtuses are to be looked for in the thymus, which may be much enlarged and contain abscesses; in the lungs, where the condition known as white hepatisation may be seen; in the liver, pancreas, and spleen, where great enlargement may occur, due to interstitial deposit of cellular or fibrous tissue and gummata in the form of granules or small patches. Pylephlebitis also may occur. At the ends of the long bones there is a broad zone of ossification between the diaphyses and epiphyses with very irregular proliferations. Among the bony tissue are islets of cartilage, and in the cartilage are islets of bone. The spirochætæ may be found in the organs mentioned above, and in the adrenals. Weber found spirochætæ in 84 per cent. of macerated fœtuses born in the later months of pregnancy.

I will not enter any more fully into these and other changes in the syphilitic infant or the treatment of congenital syphilis as these matters are being dealt with by Dr. Robert Hutchison.

The Syphilitic Placenta.

Almost every departure from the normal that can occur in the placenta has been attributed to syphilis, but recently Wassermann's reaction and the discovery of the spirochæta pallida have made our knowledge about syphilitic changes in the placenta more certain and more accurate. Hydramnios, the pathology of which is obscure, has been said to be caused by syphilis, but I am not aware of any evidence on which this statement is based.

Microscopic Appearance.—The syphilitic placenta is larger and heavier than normal, solid to the feel, with over-growth of the cotyledons and deep grooves between them. It is pale, often œdematous, dull and greasy in appearance if the fœtus is dead, friable and with a sort of sausage-meat appearance on section. Œdema cannot be looked upon as being characteristic of syphilis alone. Its weight, instead of being about one-sixth, may be a quarter or even more than a quarter of the weight of the fœtus. With a large healthy child there is a correspondingly large placenta, and increase in the weight of the placenta is not by itself evidence of syphilis, but *relative increase of weight,* not due to œdema or to the presence of cysts or other tumours of the placenta, is to be looked on as being suggestive of syphilis; so much so that in Pinard's wards if the placenta is relatively heavy the child is allowed to be suckled only by its own mother. In abortions or premature births the weight of the placenta may be equal to or even greater than the weight of the fœtus.

Microscopically, there are no lesions, except perhaps the presence of gummata, that are specifically caused by syphilis alone. White infarcts are of no special importance, as they may often be found in non-syphilitic placentæ. There are vascular changes, changes in the stroma of the villi, in the villous epithelium, and in the maternal part of the placenta. There is a decrease in the number of vessels, due partly to the presence of endarteritis obliterans which is always found in the ripe placenta, and partly to periarteritis, and partly to increase in the number of the stroma cells of the villi. In the interior of the villi are found numbers of round and spindle cells which compress and partly obliterate the vessels. The whole villus becomes swollen by this increase of the number of stroma cells, and there is also a proliferation of the villous epithelium itself. In the decidual part of the placenta is seen what is called gummatous endometritis, forming microscopic gummata, nodules of connective tissue.

The statement made by Fraenkel that the lesions in the placenta vary in position, according as the syphilis is due to the father or to the mother is not borne out by other observers.

The umbilical cord is thick, and there is a marked hypertrophy of the connective tissue in the thickened walls of the vein.

Spirochætæ may be found in the placenta when the fœtus exhibits definite syphilitic lesions, but it is difficult to find them in the placenta in cases where they cannot be found in the fœtal organs. They are found in the intervillous spaces, in the interior of the villi, and sometimes in the villous epithelium.

Note.—*A Clinical Lecture by a well-known teacher appears in each number of this Journal. The lecture for next week will be by Sir G. H. Savage, M.D., F.R.C.P.Lond., Consulting Physician to Guy's Hospital: Examiner in Mental Pathology, University of London. Subject: "Jealousy as a Cause and as a Symptom of Insanity."*

ORIGINAL PAPERS.

THE CURE OF SQUINT. (*a*)

By N. BISHOP HARMAN, M.B.Cantab., F.R.C.S.Eng.

Senior Ophthalmic Surgeon to the West London Hospital; Ophthalmic Surgeon to the Belgrave Hospital for Children.

Squint was the loss of the finest function of the human eyes—binocular vision. Confining his attention to fixed squints in children, he said that in a school of 1,000 children no less than 18 were squinters, and that girls were nearly twice as much affected as boys. In 1,400 children seen at a children's clinic on account of poor vision 199 were squinters; the incidence in these cases was from 100% in the years 4 and 5, to 5 in the 14th year. Of these 199 cases 166 were fixed convergent squints, 16 alternating convergent, 8 divergent, the rest were associated with disease of the eyes.

After quoting from ancient authors to show that squint was held to have an evil moral significance, he proceeded to trace the evolution of the binocular vision, and the profound effect it had had on the form of man; he maintained that the upright position and "his fair large front" were directly associated with the evolution of vision. The effect on the brain was similar, for the area of visual cortex was incomparably greater in the hunting animals than in the hunted, and greatest of all in man. The control of the eyes he likened to that of the driver of a four-in-hand. A good driver would master a poor team, but the best team was defective without a driver. So the balance of the eyes was maintained by the fusion faculty of the brain; if that were poor, then squint would ensue even though the eyes were good. Defects of the eyes were adjuvant factors. In not a few cases there was a strongly hereditary tendency to squint. Treatment could be put into three grades:—(1) Balancing the vision of the eyes: First there must be correction of any error of refraction by retinoscopy; next exercise of the vision of the squinting eye. (2) The awakening of the fusion faculty; this had been first attempted by Erasmus Darwin in 1778, and the modern practice was of the utmost value in ascertaining the power of the brain to resume control under favourable conditions. (3) Operation. The *rationale* of this step lay in the fact that squint of any duration was associated with changes in the tendons, and that these acted as insuperable obstacles to the resumption of brain control. In convergent squint the internus tendon was shortened and thickened, the externus thinned and lengthened. If a true cure was to be effected—*i.e.*, the restoration of binocular vision; then, if stages 1 and 2 of the treatment failed to effect a speedy cure, operation should be done before time had stereotyped the vicious effects of the squint. If that time had passed, then we were no more than beauty doctors intent on removing an ugly cast. The advocate of early and regular operation must be prepared to present an operative procedure which was both expeditious and reliable. And in this connection Mr. Harman showed photographs of the steps of his combined operation for lengthening the contracted tendon and shortening the stretched tendon. He maintained that effects could only be secure when both the affected tendons were adjusted; indeed, it was the only method whereby the full mobility of the eye could be secured without subsequent deformity.

His operation for shortening a tendon "Subconjunctival Reefing and Advancement" is performed as follows: The tendon is not cut or exposed to view. The upper and lower edges are cleared by two buttonholes cut through the conjunctiva and capsule. The tendon is freshened by a rasp. Special forceps of simple design are then passed into the buttonholes to secure the tendon. The movement of the forceps folds the tendon. The reef is sewn up or advanced as the case indicates, and then the antagonist is lengthened by a graduated partial tenotomy.

The steps of the reefing advancement are as follows: (1) The eye is secured with an anchor stitch placed at the limbus in the axis of the tendon to be shortened; (2) the position of the tendon is noted, it is pointed out that there are well-defined surface markings and colour differences; (3) the buttonholes are cut above and below the tendon close to the canthus; (4) the tendon is lifted and both surfaces rasped with the instrument provided; (5) reefing forceps are applied, adjusted to the extent of the shortening required, and rotated; (6) the reef is sewn up by a double over and over stitch; and (7) the reef is advanced by fixing the stitches into the limbus.

Then the antagonist was lengthened by the "jigsaw" operation. The tendon is exposed, secured in "director-forceps" which checked bleeding and gave a guide to the incisions. Three cuts were made athwart the tendon, the middle extending two-thirds from one edge, the lateral each one-half across from the other edge. The tendon thereon extends lengthwise without loosing its attachments or alignment. The author showed how the cuts can be varied to secure vertical deviation also.

Results: Of the first 100 serial cases, including

(*a*) Abstract of paper read before the West London Medico-Chirurgical Society, Friday, December 4th, 1914.

the early experimental operations, the results obtained after the average interval of nine months were: Binocular vision, 4; straight, 36; error less than 3 degrees 22, less than 5 degrees 23 (these make 85 per cent. successes); error 10 degrees (since corrected) 9; over that 4; relapsed six months after operation during severe keratitis 1, and over-correction found six months after operation 1. He had now almost completed the second hundred cases, and the percentages of successes were still higher.

One of the advantages of this combined operation was the power for nice regulation of effects. This was of the utmost importance when operation had to be done early to save the binocular vision, for at an early age a general anæsthetic was commonly needed, and the operator was entirely dependent on his own judgment and *technique.*

TWO CASES OF HYSTERECTOMY FOR ANTE-PARTUM HÆMORRHAGE. (a)

By THOS. GEO. STEVENS, M.D.Lond., F.R.C.S.Eng.

Obstetric Surgeon to St. Mary's Hospital, Gynæcologist to the Hospital for Women, Soho, Physician to In-Patients, Queen Charlotte's Lying-in Hospital, London.

The first case was one of central placenta prævia in a patient, æt 37, 28 weeks advanced in her twelfth pregnancy. She was admitted to Queen Charlotte's Hospital at 1 a.m., having had a severe blood loss the evening before. The os uteri was found to admit two fingers, and the whole lower uterine segment was covered by placenta as far as the finger could reach. A Champetier de Ribes' bag was introduced above the placenta, considerable hæmorrhage occurring during the procedure. Subcutaneous saline and morphia ¼ gr. were given owing to the patient showing signs of collapse. Seven hours later the bag was expelled, the uterus was in a state of tonic contraction, and the cervix had closed up after allowing the bag to pass. No further hæmorrhage occurred. At this point, Mr. Stevens saw the patient, and after debating the question as to the best method of delivering her, so as to avoid further blood loss, came to the conclusion that hysterectomy without opening the uterus offered the best solution of the difficulty. As the child was already dead, this operation was performed under morphia-atropine open ether anæsthesia, with infiltration of the abdominal wall by urea-quinine hydrochloride. Four pints of saline solution were infused under the breasts during the operation. The operation proved to be a very easy one, and under the method of anæsthesia chosen was practically shockless. The patient made an uninterrupted recovery.

The second case was one of external and concealed accidental hæmorrhage in a patient, æt 33, about 30 weeks advanced in her ninth pregnancy. She was admitted to Queen Charlotte's Hospital at 4 a.m. with the history of a big hæmorrhage at 10 p.m. the previous night. There was no hæmorrhage on admission, the pulse was 112-120, the patient looked very anæmic, and no placenta could be felt in the lower uterine sigment. The patient was kept quiet in bed, and twelve hours after admission bleeding recommenced. An attempt to introduce a de Ribes' bag failed owing to the rigidly closed internal os. Pituitary extract, ½cc., and a little later morphia, ¼ gr., and 4 pints of saline were given subcutaneously, after which the external bleeding ceased. The patient, however, had a pulse of 150, and an examination of the uterus resulted in a provisional diagnosis of concealed hæmorrhage. Seeing that the child was dead, the internal os uteri closed, and the patient in a very serious condition, Mr. Stevens decided that hysterectomy without opening the uterus offered the best chance of saving the patient's life. This was done under morphia-atropine-open ether anæsthesia, with novocaine infiltration of the abdominal wall. Again the operation was very easy, and proved to be shockless—the pulse falling from 150 to 134 at the end of the operation. The patient made a good recovery.

The reason for the choice of hysterectomy rather than Cæsarean section in these two desperate cases was the impossibility of any guarantee that the latter operation could be done without further considerable blood loss. Both these patients had lost so much that a further loss of a pint would have almost certainly proved fatal. Further, at the time that Mr. Stevens saw the patients there was no possibility of delivery *per vias naturales* without a considerable loss. The actual amount of blood lost during the operation in each case did not amount to three ounces, and under the method of anæsthesia chosen the operation was shockless.

SOME OF THE ABSURDITIES OF THE BRITISH PHARMACOPŒIA, 1914.

By J. C. McWALTER, M.A., M.D.,

Governor of the Apothecaries Hall of Ireland.

The major absurdities of the new Pharmacopœia have been already alluded to—the wicked and dangerous stupidity whereby strophanthus is made four times as strong, nux vomica half-strength, the tincture of opium stronger, and that of digitalis weaker. A few more of the more obvious absurdities may also be noted, thus:—

Acetum Scillæ is suddenly doubled in strength. Recent researches have shown that squill is a potent cardiac tonic, which should not suddenly be increased in strength.

Dilute Acids—sulphuric, nitric, hydrochloric—were formerly diluted so as to be of equal strength. Now they must be made 10 per cent. by weight, which means that each one is of different strength, and it would take a mathematical genius to calculate how much sulphuric is equivalent to an equal bulk of nitric or hydrochloric acid.

Collodium Vesicans is naturally of an olive green colour, but the compilers of the new "B.P." seem to think it is to be used as a face paint instead of a blister, and accordingly they colour it with cochineal.

Emplastrum Belladonnæ.—The present plaster is really potent. The new is cut down to half-strength.

Extractum Hyoscyami.—This is suddenly increased 300 per cent. in strength.

Ferri Carbonas Saccharatus.—Glucose is now added to this preparation—a fact which must be borne in mind when testing urine.

Injectio Morphinæ Hypodermica is now reduced to half-strength—for some incomprehensible reason. This means you cannot give half-a-grain of morphine unless you fill your 10 minim hypodermic syringe twice. Likewise, cocaine injection is half-strength—merely to make confusion more confounded.

(a) Paper read in the Section of Obstetrics and Gynæcology. Royal Society of Medicine, December 3rd, 1914.

Liquor Potassæ is reduced about 20 per cent. in strength. This is annoying for those who are in the habit of using a certain quantity in copaiba mixtures.

Spiritus Etheris Nitrosi.—Hundreds of pharmacists having been prosecuted for selling spirit of nitre with only 1.52 per cent. of ethyl nitrite; the "B.P." now declares such to be the official standard.

Spiritus Juniperi.—All good kidney patients are cranks, and bitterly resent any alteration in their favourite mixture. To accomplish the maximum annoyance to them, the "B.P." now ordains that spirit of juniper shall be twice as strong as heretofore.

Syrupus Ferri Iodidi.—The favourite fad of the compilers of the 1914 "B.P." is to stick glucose into every iron preparation, thinking it will prevent oxidation. Thus it is added to this syrup, which is also reduced 30 per cent. in strength.

Tabellæ Trinitrini.—Everybody knows that if you want effects you must give 1-50th instead of 1-100th grain of nitro-glycerine in a tablet. Hence to put them far beyond the possibility of usefulness the new "B.P." reduces the strength to 1-130th grain.

Tinctura Aconiti.—In our earlier days we used to regard aconite with that dread, mixed with awe, which we are told is the proper attitude towards the Decalogue. Lately we have been horrified to learn, on high pharmacological authority, that much of the tincture of aconite of commerce is inert. Anyhow, it is suddenly made double strength in the new "B.P."

Tinctura Colchici.—Practitioners will wonder why their colchicum prescription can no longer relieve gout. The explanation is that the strength of the tincture is furtively pulled down by 50 per cent. Hence the former doses will be useless.

Trochiscus Acidi Carbolici.—It having been demonstrated that 1 grain of carbolic acid in a lozenge is too weak to be of much service, the "B.P." 1914 orders that only $\frac{1}{2}$ grain be used for the future.

Trochiscus Acidi Tannici.—In order to bring about the maximum discomfort and annoyance amongst those who prescribe or use medicated lozenges, tannin lozenges, ordered to be made with tolu basis in the "B.P." 1867, and changed in the "B.P." 1898 to fruit basis, are now to be juggled back to tolu basis; whilst catechu lozenge is juggled from simple to fruit basis, and ipecacuanha to simple from fruit basis.

Unguentum Hydrargyri Ammoniati.—The last thing on earth you want, when you order white precipitate ointment, is to have it absorbed. You use it for a local germicidal action. Lard being, therefore, the most unsuitable possible basis on account of its absorbable qualities, the "B.P." 1914 orders it to be used instead of the present far more suitable paraffin.

Unguentum Iodoformi.—In like manner, you use iodoform for its local action. Nothing is more objectionable than to have it absorbed, hence the compilers of the "B.P." direct it to be made with highly absorbable lard, instead of paraffin, and vaseline.

Tinctura Iodi Mitis.—Never was there such a vogue for tincture of iodine as nowadays, and, of course, the editors of the "Pharmacopœia" could not resist the temptation to give the practitioner some petty annoyance over the matter. If you want to prescribe common, ordinary tincture of iodine, the pundits of the "Pharmacopœia" insist that you must describe it as "tinctura iodi *mitis*."

THE
USE AND ABUSE OF THE TONSILS. (a)

BY JULIUS H. COMROE, A.M., M.D.

Physician to the York Hospital, York, Pa.

It is with no small degree of tremulous fear and daring courage that I stand before so critical and representative an audience in an attempt to defend a helpless organ, whose guilt has been so uniformly acknowledged—an organ which has been accused of being an accessory to the fact in causing so many and varied pathologic conditions, of more or less serious nature, and which has, through professional and lay expressions, and even through the public press, been condemned without a full and impartial hearing. A sparkling hope that the innocent may be prevented from suffering with or for the guilty, that in the future, many tonsils may be rescued from unnecessary and undeserved slaughter, makes me feel privileged to present some relevant facts, which, alone, make true science. This hope is augmented by the successful escape from a somewhat similar series of indiscriminate massacres of the ovary, the appendix, the inferior turbinates, etc.

There is not a fraction of a doubt that the removal of the tonsils is ofttimes indicated, and that innumerable good and commendable results have been accomplished by such surgical treatment. It is not, therefore, my object to attempt either to condemn or to revolutionise modern tonsil surgery in general, or to ridicule the professional attitude toward such procedure, but rather to endeavour to crystallise the views of both radical and conservative internists into such a form as will aid each of us in solving this complex problem. Probably no other instance exists in which so many human lives are involved by such a solution. In 1912, there were in Philadelphia 37,000 recommendations to parents made by medical inspectors that these organs receive immediate attention, constituting about 26 per cent. of the recommendations for all defects in that period. In New York City, during the same year, medical inspectors had supervision of 825,000 school children, and reported that approximately 30 per cent. of the children examined had hypertrophied tonsils. As it was the desire of the department to fix a certain standard as to when operation should be recommended, a letter was sent to a number of eminent specialists in nose and throat diseases asking them what, in their opinions, were the exact indications for the operative treatment of enlarged tonsils, and it is a very significant fact that no two of these specialists agreed as to the exact details. The question therefore involves the disposition of the tonsils in millions of children throughout the United States, and should be sufficiently vital to demand most exacting consideration.

(a) Read before the Section on Diseases of Children at the Sixty-fifth Annual Session of the American Medical Association, Atlantic City, N.J., June, 1914, and published in the *Journal of the American Medical Association*, October 17th, 1914.

PROTECTIVE FUNCTIONS.

It is a universally accepted scientific fact that every organ is of essential value and service to the organism which contains it, and the organ under discussion has not yet been proved to be valueless. The faucial tonsil is a natural organ; some questions pertaining to its physiology have been definitely settled; judgment on others is so uniform as almost to force conviction, and some remain yet to be solved. From their important anatomic position, the *ensemble* of adenoid bodies—more commonly known as the Waldeyer ring—situated at the very entrance of the respiratory and digestive passages, would be looked on as constituting the first line of defence against microbic invasion, and of this group, the tonsils stand out most prominently. Primarily, it is the function of all lymphatic glands to act as a sort of filter for lymph. Thus, should the lymph contain any foreign substances or toxic material, these tend to be halted within the gland, not alone because of the anatomic peculiarities of the structure, but also on account of the cellular hyperplasia resulting from the irritation. This so-called barrier action is a most important one and the tonsils are arranged like sentinels to guard the most vital orifices of the human organism—a function that has been most clearly demonstrated by Bizzozero, Ruffer, Ribbert and others. Particles of dust, cells from malignant tumours, dead or disintegrating cells, red blood-corpuscles, bacteria, etc., which, in any manner, get into the lymph-vessels, are harmlessly carried along until a lymph-node is reached, where they are, in part at least, deposited among the trabeculæ of the sinuses, or are taken up by the phagocytic cells, while the filtered lymph passes on and out of the efferent vessels.

This most important physiological function has been attributed to the tonsils by Delafield, Pruden and many others. Stöhr has demonstrated that the tonsils are actually traversed by an enormous number of leucocytes, which exercise a kind of migration toward the oral cavity; actually demonstrating the passage of leucocytes through the tonsillar epithelium into the buccal cavity, which is a medium for various micro-organisms. This continual and normal condition is often termed Stöhr's phenomenon. Likewise, Metchnikoff found that when he removed a particle of mucus from the surface of the tonsils of a person in good health, he always could demonstrate that it contained numerous leucocytes, especially small phagocytes, filled with micro-organisms of all kinds. Gulland, Kümmel and Lindt have also demonstrated the presence of these leucocytes. Phillip Stöhr states that the leucocytes that wander through the epithelium of the tonsils are so numerous that they may be regarded as the most fertile source of the salivary corpuscles. Von Chiari agrees in this opinion and thinks that the tonsils serve for the purpose of the formation of leucocytes. Adami and Nicholls, as a result of careful investigations, concluded that while the tonsils are themselves, to a limited degree, phagocytic through their lymphoid cells, polymorphonuclear leucocytes in considerable numbers make their way from the blood-vessels to the surface of the tonsils, through their epithelial lining. These leucocytes are strongly phagocytic and their marked activity suggests that the tonsils form one of the most powerful barriers of the body against invasion by infectious micro-organisms.

Brieger has proved that the lymphocytes in the tonsils, though devoid of amœboid movement, enter the epithelium of their own accord, and he has demonstrated their presence in lesser or greater degree in the epithelium of the tonsils. We have to assume a vehicle which carries the lymphocytes from the adenoid tissues; this vehicle is the lymphatic juice which fills all the crevices between the tissue, and which reaches the surface through the finest canals. The cause of the movement of the lymphatic current, according to Brieger and Goerke, is to be found in a difference of pressure in the afferent lymph-vessels and the free surface. Increase of blood-pressure increases the force of the lymphatic current and carries along a larger amount of lymphocytes to the surface of the tonsils. In addition to the specific effect attributed to these lymphocytes, the current, *per se*, militates against the entrance of germs, as the mechanical effect of the current, assisted by the lymphocytes, washes away the infectious micro-organisms.

Harrison Allen, Kayser, Pluder, Schoenemann, George B. Wood, Ashby and others state that the tonsils undoubtedly form lymphocytes in the germinating follicles. Retterer also proved the existence of clear germinating centres in the follicles of the tonsils, and demonstrated the presence of lymphatic vessels occupying the entire follicular mass of organs, forming a system of closed lymphatic canals which do not open into the connective tissue reticulum by stomata or by their extremities. Piersol found that the epithelium covering the folds and the depressions of the tonsillar surfaces is completely infiltrated with lymphoid cells, and that great numbers of the cells escape into the oral cavity to become the salivary corpuscles, of which the tonsils are a most important source.

J. Gordon Wilson states that plasma-cells are derived from these lymphocytes, and are engaged in removing and utilising cell material which has broken down, and that their presence, instead of indicating disease, proves that the tonsils are physiologically active. D. J. Davis concurs in this view of the origin of plasma-cells, although Unna thought that they were derived from the connective tissue.

Hugh T. Ashby, in an analysis of three thousand cases of enlarged tonsils (and adenoids) concluded that they enlarge in order physiologically to augment the lymphoid tissues of the body. In every fœtus, after the age of six months, it was possible to detect some adenoid tissue, but in infancy and early childhood, the lymphatic structures were at their maximum—exactly at a time when enlarged tonsils (and adenoids) are very common. I have presented sufficient evidence, therefore, that the tonsils are generators of lymphocytes and leucocytes, which are undoubtedly present in large numbers, where they may even be stored up for ready action, when called on, and that in addition to their specific bactericidal action, a constant stream of lymph from the depth to the surface exists, which alone would protect by counteracting an invasion of micro-organisms and by clearing the surface of [illegible] these undesirable settlers. This may be termed the protective function of the tonsils.

DEFENCE AGAINST ABSORPTION.

In addition to actually opposing the systemic invasion with infectious micro-organisms by this protective action of the cellular elements, it has been conclusively proved that the tonsils, *per se*, actually antagonise the entrance to their interior of infectious germs. Hodenphyl conducted a careful series of experiments dealing with the phenomena of absorption at the level of the tonsils and found that the epithelium prevented absorption, which latter became possibly only when the epithelium was destroyed, or when the substances employed were introduced under the epithelial bed, and that even under these conditions, it was extremely slow. He employed fatty substances, powders and coloured solutions as recommended by Labbé and Sirugue. He found that the epithelium had the same protective *rôle* at the level of the tonsils as at the level of the buccal mucosa, and that the crypts augmented its extent.

Even in the normal state, the epithelium is more or less irritated, and above all, at the bottom of the crypts, where Labbé and Sirugue have observed the incessant phenomena of cellular renovation. This epithelial irritation is due to the presence of dust, or small foreign bodies which penetrate into the crypts; it is due above all to the existence at the surface of the tonsil of pathogenic microbes, which are found incessantly in the normal state. These micro-organisms, although in the crypts, are nevertheless on the exterior of the tonsil, and it is the defensive reaction of the epithelium which prevents their penetration. It is only when the epithelium is destroyed that they penetrate, and even in such instances, they rarely pass beyond the epithelial bed.

The leucocytes have not solely a phagocytic *rôle* in regard to microbes, but they destroy also their toxins by producing antitoxins, nucleins and oxydases, which have positive chemotoxic properties in regard to white corpuscles, and exalt their vitality.

The phenomena of absorption at the level of the tonsils have been further studied experimentally in the laboratory of Landouzy, at the Laennec Hospital, by Marcel Labbé and C. Levi-Sirugue. They found that the epithelium prevents absorption, and their findings were in full accord with those of Hodenphyl.

Jonathan Wright, in a personal communication (to Wendell C. Phillips) writes:—

"My experiments seem to furnish conclusive evidence that under normal conditions, bacteria do not penetrate the epithelial layer of the tonsil in sufficient numbers at least to set up disease. Yet, we know from clinal experience that nerve shock from fractures, hæmorrhage, nasal operations, uric acid, sudden cold, etc., produces systemic changes whereby infection is more easy and more dangerous. I believe that the mechanism causing surface infection is a chemico-physical change set up by impulses carried along the sympathetic nerves. This produces an alteration in the surface tension existing normally between the bacterial denizen of the tonsillar crypt and the epithelium which lines it. By virtue of this change, the living pathogenic agent enters the system.

Wright contends that the selective action of the tonsillar epithelium on dust and bacteria, whereby the latter at times are prevented from passing, and at other times are allowed to pass freely into the lymph-channels, is not fully explainable by the laws of immunity, but rather that we are dealing with living matter which obeys the laws of heredity and evolution, and that adaptation by natural selection is the only tenable explanation as to why the protoplasm of the epithelial cells of the tonsillar crypts acts in such a manner.

Clinically, we know that infectious germs, especially streptococci, are commonly found in the tonsillar crypts of healthy individuals, and that auto-infection is probably essential to induce follicular tonsillitis. Wright also adds the significant comment that it is a highly interesting sequence of events which takes place between the time the micro-organism floats on food or in the air into the tonsillar crypts and the time it reaches the deep lymphatics which drain the tonsil—which he regards as a biological process of a physico-chemical nature, affecting the surface tension of the colloids, of which the cells and bacteria are composed.

The defence of the tonsil against absorption, which has been so conclusively demonstrated experimentally, has been exhibited clinically by most observers, notably Jacobi, Fränkel, Goerke and others, who attributed the general mildness and low mortality-rate of tonsillar, as compared with other diphtherias, before the days of antitoxin, to this specific defence. It is simply remarkable how many and varied pathologic conditions are found by pathologists to exist, strictly confined to the tonsil, that are not found elsewhere by the internist—again adding clinical evidence of the defensive action of these organs.

OTHER FUNCTIONS OF THE TONSILS.

Internal Secretion.—Escat believes that the faucial tonsils have not for their only functions those above enumerated, but that they also possess a physiological and biological function, due to an internal secretion. With Allen, he agrees that the tonsils secrete a principle, the exact nature of which it has been difficult to determine, but which may be useful in the development and to the growth of the individual, and probably to the growth of the skeleton. Masini believes also that the tonsils are the seat of an internal secretion, somewhat similar to that of the suprarenal gland, and he succeeded in producing an increase in the arterial pressure by injecting many animals with an extract of tonsils. E. L. Shurley subscribes to the presence of this internal secretion. Leto discovered fuchsinophile cells in the human tonsils, similar to those which Schridde found in the thymus gland. He states that their origin is not known, but they may develop from the perivascular tissue, and in his opinion, they have a secretive function.

Lubricant.—Frank E. Miller emphasises the importance of the value of the tonsils as a lubricant. The frequency with which atrophic pharyngitis follows tonsillectomy adds clinical evidence relative to the necessity of this function, and John H. Johnson further endorses this point of view.

Voice.—That the tonsils possess important mechanical, acoustic and phonetic functions very few will deny. Their consistence, shape, size and presence or absence give structural variation to the resonance cavities, and create as well as determine differences in individual timbres of the voice. They play an important *role* in tone formation, and the excellent work of Faulkner along these lines is invaluable. J. Price Brown and many others have reported a large number of cases in which the singing voice had been practically destroyed by tonsillectomy.

Immunity.—Digby asserts that by a process of continual autovaccination, the tonsils (in common with the solitary follicles of the intestine, Peyer's patches and the vermiform appendix) protect the body against chance infection. By chemotaxis, all bacteria in the vicinity are attracted through the overlying epithelium into the lymph-nodule. This bacterial attack, invited into the region most favourable to the defensive mechanisms of the body, is nearly always repulsed; lymphocytosis takes place and a great excess of specific bacteriolysins and antitoxins are also produced, which enter the general system and combat the attack at a more vulnerable point. Thus, immunity against disease is acquired without the individual having apparently had the disease. The same theory is advanced by Packard, who holds that the micro-organisms of acute inflammatory rheumatism are streptococci weakened through this action of the tonsils, and that otherwise we would observe septic diseases oftener. Mackenzie also endorses the existence of this function.

REMOVAL OF THE TONSILS.

It is not within the province of this paper, nor will the time allotted permit me to enter into a discussion of the tonsils in their relationship to other diseases. The quartet comprising tonsillitis, rheumatic fever, endocarditis and chorea is almost classic. In addition, competent observers have considered the tonsils as a focus from which may be disseminated tuberculosis, diphtheria, empyema of the nasal sinuses, septic joints, gall-bladder disease, appendicitis, gastric ulcer, urethritis, etc. But we also agree that the uterus, breast and stomach constitute the organs which become the seat of the vast majority of malignant growths which produce metastases, and yet no one has had the courage to suggest wholesale removal of any of them as a prophylactic measure. Furthermore, we must not lose sight of the fact that the removal of the tonsils is not so simple a matter as is commonly supposed. Although a large number of deaths, complications and sequelæ never reach the medical press, very recent literature from the pens of skilled and experienced specialists gives evidence of many deaths and complications resulting from serious hæmorrhages, local traumatic disturbances, gangrene, diphtheria from auto-infection, infection of the middle ear, surgical shock, asphyxia, hyperpyrexia, general septicæmia, surgical emphysema, pulmonary infarct, septic infection of the lungs and its serous membranes and also of the cervical glands, latent tuberculosis in the lungs and adjacent glands, status lymphaticus, serious disturbances of the nervous system, amygdalotomy rash, etc.

With these various well-confirmed expressions before us, who can conscientiously refuse to enter a most energetic protest against operative intemperance, and to place himself on record as considering the indiscriminate removal of the normal tonsil an absolutely inadmissible proceeding? We cannot and must not be guided by any rule of thumb, but must carefully study and consider each case as an individual entity. Very few will dispute the propriety of tonsillectomy: (1) when these organs greatly interfere with respiration and thus lead to insufficient oxygenation of the blood; (2) when they are actually diseased beyond repair, or (3) when there is no reasonable doubt as to their being, directly or indirectly, an ætiologic factor in the production of disease. But the size of the tonsil is by no means a pathologic symptom; a small tonsil may prove more harmful than a large one, and yet size is frequently considered one of the chief indications, if not the chief indication for removal. The Bureau of Child Hygiene, in New York, has established the following very practical standard as a guide to its medical inspectors, namely, that no case was to be considered a true hypertrophy of the tonsils, unless the hypertrophy was such as to interfere with the nutrition of the child, or to cause secondary disturbances, interfering with its health, and incidentally with its school progress.

In conclusion, it is my firm belief that the tonsils were put into the throat of man with good, and not evil intent, to serve a physiological rather than a pathologic purpose, and that the normal tonsils have physiological, chemical and phonetic functions which should not be indiscriminately eradicated.

TRANSACTIONS OF SOCIETIES.

MEDICAL SOCIETY OF LONDON.

Meeting held Monday, December 7th, 1914.

The President, Sir John Bland-Sutton, F.R.C.S., in the Chair.

DISCUSSION ON

TETANUS, WITH SPECIAL REFERENCE TO (*a*) PROPHYLAXIS, (*b*) THE SERUM TREATMENT OF ESTABLISHED TETANUS, DOSAGE, AND METHOD OF ADMINISTRATION.

(Specially Reported for this Journal.)

Major Denis Embleton, in opening the discussion, said he had had the opportunity of observing series of cases of the disease at the Third London General Hospital and at Netley. Two facts must be carefully remembered: the part played by the spore, and the fact that the bacillus tetanus was a strict anaërobe—it would only develop when oxygen was excluded. The spore was very difficult to kill; it could stand almost a dull red heat and 15 hours in 1 in 20 carbolic. The disease was produced by inoculation of the spore, which subsequently developed into the bacillus. It was questionable whether this absence of oxygen was a condition necessary to the development of the bacillus inside the body. If a piece of sterile tissue, such as a piece of guinea-pig's kidney, were placed in an ordinary broth culture, the bacillus tetanus would develop, even if no further precautions were taken to exclude oxygen. Damaged tissues underwent autolysis, and this latter, rather than the exclusion of oxygen, seemed to be the favouring element in development. It was said that the bacillus remained practically at the site of inoculation and in the nearest lymph glands; but if it were so, it differed from all other bacteria. It should be possible to demonstrate the bacilli in the bone marrow, spleen and urine of the patient. Recently it was said that if a wound were swabbed out with pure carbolic, tetanus and sepsis would practically be abolished and the wound would heal by first intention. But Canthack used 1 in 20 carbolic to isolate and cultivate the bacillus tetanus. Pure carbolic swabbed on to a wound artificially produced in a guinea-pig and infected with spore-bearing organisms would not protect the animal, even when the carbolic was applied two minutes after the infection had been produced, the bacteria having, in this short time, gone beyond the range of the antiseptic. The blood could deal with the organisms so long as it had free access to them. Therefore, in cleaning a wound no substance should be used which was likely to damage the tissues. Hot baths and Bier's method should be among the means employed. The value of anti-tetanic serum for prophylaxis had been definitely established, both from experiments on animals and statistics in man. Probably all the wounds received by the troops in France and Belgium were infected with tetanus spores, yet only relatively few of the wounded developed the disease. As all wounds could not be treated prophylactically, shell or shrapnel wounds should be chosen. He had seen tetanus in a man wounded only with a rifle bullet. It was impossible to lay down a hard-and-fast rule as to what was a prophylactic dose in every case. Hypnotics were given to relieve symptoms, not with any idea of curing the disease. As the central nervous system was being severely poisoned by the disease, it was safer to withhold hypnotics unless they were felt to be absolutely necessary. He used chloral and bromide; and where rapidity of action was desired, he employed paraldehyde and ether suspended in normal saline, given intravenously. If the dose of serum given was large, the good results became manifest. Some said that if the cranial nerve nuclei, other than the fifth, were involved, the case would die, whether serum was given or not. To this, however, he did not feel inclined to agree in the absence of further proof. The intrathecal route for the injection of the antitoxin had been advocated, on the assumption that by this means it got into rapid and intimate contact with the infected nerve cells. But this was based on an erroneous conception; there was no evidence that a non-diffusible substance could penetrate into the nerve tissue to any depth when injected; but there was experimental evidence that it could not do so. Substances inoculated in this way rapidly passed into the venous sinuses and lymphatic channels, so that this was only another way of giving it intravenously. Satisfying results had been reported after injecting anti-toxin into the frontal lobes. In tetanus, the tension of the cerebro-spinal fluid was very much increased, and it was possible that the relief of tension following the pouring out of the fluid might have caused beneficial results, as in meningitis. The intravenous route for the injection of serum was the easiest and best; but it might cause anaphylactic symptoms and death. The safest route was the subcutaneous, but the absorption was slower. On the appearance of the first symptoms, 10,000 units should be inoculated at once, and subsequently 3,000 units every two hours until there was an abatement in the symptoms.

Prof. F. W. Andrewes said he had seen only three cases of tetanus since the war broke out; but he had read a good deal on the subject. There was no evidence that this bacillus inhabited earth and soil as such, but only cultivated and manured soil. The real source was the animal excreta with which cultivated soil was mixed. The bacillus was very rare in human fæces, occurring only in 5 per cent. of samples; but in the dung of horses and cattle it was found in 90 per cent. of samples. For some investigations on the disease at St. Bartholomew's, he tested some samples of soil from his own garden, which had been a good deal manured; and every mouse or guinea-pig inoculated with the soil developed tetanus. The risk of the disease arose when there was deep implantation; surface infection seemed to be of no moment. He frequently cut and scratched himself when gardening, but he did not fear the onset of tetanus. One could often estimate the risk of tetanus in a given wound by a rough-and-ready bacteriological examination—the recognition in the wound of the tetanus bacillus was very rare. If there were common fæcal anaerobes, such as the bacillus aerogenes capsulatus and the bacillus Welshii. The fact that the disease did not develop from superficial abrasions, even though infected with the bacillus, provided a case for the open treatment of wounds suspected of contamination by anaërobes. This he regarded as of greater importance than flooding the wounds with oxygenating antiseptics, such as hydrogen peroxide; these latter parted with their oxygen so rapidly that their action could only be temporary. Five hundred United States units seemed sufficient to protect the horse, the most susceptible animal known. Twice that should be administered when the wound was severe and foul, and several days had elapsed since it was inflicted. It was worth while administering the serum up to a fortnight from the receipt of the wound; three-fourths of those who were going to develop the disease would have done so by that time. But the mortality of those developing tetanus in the third and fourth weeks was still high—over 50 per cent. of those attacked, according to one authority. With regard to treatment of the declared disease, three lines must be considered—(1) the question of the excision of the wound or amputation, (2) specific serum treatment, (3) general drug treatment. It was common hospital experience that in acute traumatic tetanus, excision of the wound did little or nothing to avert a fatal issue; usually it was undertaken too late. Experiment also (on sheeps' tails) seemed to show that excision did not serve to preserve life. Still, he believeed it good practice to excise wounds where practicable, for the main fount of the toxin seemed to lie in the wound itself. Little or nothing could be achieved by specific serum treatment in the more acute traumatic cases: it could not be expected to undo the damage already caused to the central nervous system, though in a certain proportion of cases in which the issue was in doubt energetic serum treatment might turn the balance. The best method of injection of antitoxin he considered to be by the intrathecal and subcutaneous routes combined. The latter alone seemed too slow when the disease had already declared itself. He confessed to a shrinking from the use of the intercerebral route: he had seen it followed by hæmorrhage into the substance of the hemispheres as large as a walnut. It should be employed only as a last resort. In a series of 252 cases published the following results ensued:—In 142 treated without serum the fatality was 77 per cent.; in 71 cases treated with slight doses, it was 70.4 per cent.; and in 41 treated with large doses of serum, the figure was 51 per cent. As the fatal issue in tetanus was often by respiratory difficulties, sedatives might be a source of danger. He had not had experience of carbolic acid treatment.

Dr. John Eyre agreed with Professor Andrewes that there were usualy Gram-positive organisms found in persons liable to develop tetanus, but there were cases of tetanus in which these were not found. The cases chosen for prophylactic serum treatment should be those with badly lacerated or contused wounds and which had been running the risk of soil contamination. It was probably true that carbolic acid did not affect the spores, but the latter developed into the bacilli, and these were the chief factors in the production of toxic symptoms, and the bacillus of tetanus was very susceptible to carbolic acid. With regard to dosage, a number of different sera were on the market, differing much in potency. The unit which had met with general acceptance here was the United States unit. The dosage required was very greatly increased in proportion to the time which had elapsed since infection. The serum inoculated remained at its maximum for about a week, and then rapidly declined, so that in order to continue a prophylactic effect a second injection should be given in seven to nine days. The treatment of a case of established tetanus presented quite a different problem, for there was a rapid elaboration of toxin, which had done harm already. Unfortunately, the ordinary clinical signs of tetanus were those which showed that the disease was already far advanced and the nerve tissue had been very severely injured. On theoretical grounds it seemed sound practice to get rid of the local factory, especially as in experimental work the disease seemed to largely remain localised to the site of inoculation. If tissue cells were saturated with antitoxin and then thoroughly washed so as to get rid of the antitoxin, the inoculation of such washed cells did not cause infection of a second animal. Intracerebral inoculation of serum seemed to him a drastic proceeding, and should only be used as a last resort. Hoffmann recorded 13 cases treated by subcutaneous inoculation with a mortality of 53 per cent., 16 cases inoculated intrathecally with a fatality of 12.5 per cent. Most of the cases he had seen which had received subcutaneous inoculations had died, while those treated intrathecally had usually recovered. By using both those methods, as the subcutaneous injection acted slowly, an efficient mass effect was produced.

Lieut. **Blair**, M.B., R.A.M.C., said that at the Herbert Hospital, Woolwich, there had been 17 cases of tetanus. Of these six had died, nine recovered, and two were still under treatment. Ten of the cases were acute. Most of the wounds from which infection came were gunshot wounds; only four or five were from shrapnel. All the wounds had been dirty and lacerated, and had sloughing edges. Unless cases of the disease received prophylactic doses within two days of the infliction of the wound, 4,000 units should be given intraspinously, for that seemed to ensure rapid effects. The dosage given at the Herbert Hospital was 4,000 U.S.A. units daily, injected into the spinal canal. Light chloroform anæsthesia was used. He did not measure the amount of cerebro-spinal fluid withdrawn, but the serum was introduced when the fluid ran out slowly. It was very important to relieve the patient from the exhaustion following the spasms, and for that purpose ¼ gr. of morphia was given four-hourly. Sixty grains each of chloral and bromide had been their sheet-anchor as a hypnotic. Chloretone was used in three cases, but on several occasions it was difficult to retain it. It was seldom necessary to amputate a limb during the treatment of tetanus; it was better to persist with iodine and oxygen dressings. The incubation period of the cases varied considerably. Five cases had an incubation period of a week, and that of others varied from ten to thirteen days.

Dr. **Karl Browning** said it had been absolutely proved that with the lapse of time since the infection of the wound the amount of serum required increased enormously. Hence it was most important to watch for the very earliest symptoms of tetanus. He commended the article by Dr. Maconochie, in which the premonitory symptoms were set out. The serum should be run into the spinal canal very slowly, and if a fall of 20 m.m. occurred in the blood pressure, it was a sign that the limit of the dose had been reached, according to Sophia. The doses of serum given in Britain were very much smaller than those in American practice.

Major **Embleton** replied on the points raised. Amputation or the excision of the local lesion in a case of tetanus generally meant death. He did not attach so much importance to a second dose of serum in a week as to getting as rapid and efficient an action from the initial dose. In cases of the disease, even when there were only slight spasms he had never failed to find diacetic acid in the urine, and he thought that indicated that death in this disease was due to acidosis.

ROYAL SOCIETY OF MEDICINE.

SECTION OF OBSTETRICS AND GYNÆCOLOGY.

Meeting held Thursday, December 3rd, 1914.

Dr. W. S. A. Griffith in the Chair.

SPECIMENS.

Mr. **Clifford White** showed (1) an ovarian tumour which had been infected with tubercle; (2) a case of interstitial tuberculous salpingitis, in which tubercle bacilli were found in a small intra-mural abscess.

Remarks by the **President**, Dr. **Stevens**, and Dr. **Tate**.

Dr. **Macnaughton Jones** showed a

MULTIPLE MYOMA,

removed from a patient, æt. 47. The tumour weighed 1 lb. 1 oz. The nuclei varied in size from that of a small egg to a pea. There were three larger intra-uterine growths, two in the fundal cavity, and a cervical polypus. Altogether, in this comparatively small sized tumour, there were from thirty to forty growths, subserous, in the cavity and in the wall. The uterine surface was studded over with them, and its wall was a mass of nuclei. It was noteworthy that the patient sought advice rather for other symptoms than pelvic ones. Only for the past year had she suffered from menorrhagia. Multiple tumours were very common, but he had never seen one just like this.

They would see on the screen a giant myoma that some years back he had removed from a patient approaching her 60th year. In this there were some hundred small growths, and, curiously enough, he removed some years afterwards a multiple myoma, which he also showed, from her daughter. This was one mass of nuclei.

Dr. **Macnaughton Jones** demonstrated a myomatous uterus containing large numbers of intra-mural and submucous growths.

Dr. **Trevor B. Davies** recorded two cases—(1) sarcoma of the cervix uteri; (2) sarcoma of the broad ligament.

Sarcoma of the Cervix: The patient was under the care of Dr. T. G. Stevens. She was a single woman, æt. 29. There had been vaginal bleeding for three weeks. The menstrual periods were quite regular every 28 days, lasting four to seven days. Examination *per vaginam* revealed a soft, smooth, rounded, bleeding tumour growing from the anterior lip of the cervix and filling the upper part of the vagina. The uterine body was normal in size and position. A hysterectomy was performed, the vagina being divided well below the growth. The pathological report stated that the tumour was roughly spherical and covered by a smooth necrotic surface, and in the recent state it measured two inches in diameter. Microscopically the appearances were those of a spindle-celled sarcoma. The stroma was scanty and the blood-vessels had very thin walls.

Sarcoma of the Broad Ligament: The patient was under the care of Mr. Drew. She was aged 51, married, two children. Menopause 1½ years ago. Complaint: Pain in the right side of the lower abdomen running through to the back. In March, 1910, Mr. Drew removed an inflamed appendix vermiformis. Examination showed the appendix-scar to be tender, and the right kidney freely mobile. Per vaginam: To the right of the cervix lay a hard, fixed mass the size of a large walnut, which bulged down into the vaginal roof. The uterus was normal in size and position and quite separate from the mass.

Operation.—A hard swelling the size of a duck's egg was found between the layers of the right broad ligament. It was shelled out with the finger and the broad ligament closed. In less than three weeks another fixed mass was felt in the same position.

Pathological Report.—The tumour was about the size of a Tangerine orange, with a small mass the size of a large cherry projecting from its upper part. The tumour was pale in colour and fairly firm in consistence. Its surface was somewhat nodular. In section the surface was pale; there were no hæmorrhages and no vessels were seen. Microscopically, the growth was a typical spindle-celled sarcoma composed of large spindle-cells arranged in bundles without any fibrous stroma, but with numerous thin-walled blood-vessels.

Remarks by Mr. **Drew**, Dr. **Stevens**, Dr. **Eden**, and Dr. **Spencer**.

Dr. **Hubert Roberts** showed a case of pyometra and cancer of the cervix. The specimen was removed from a patient æt. 62, who had had seven children and two abortions. Menopause 17 years ago. History of severe hæmorrhage three months before admission, and also gushes of putrid fluid accompanied by severe colicky pains. The cervix revealed no ulceration nor new growth. The uterine body was enlarged, soft and mobile. During the operation of hysterectomy the vagina ruptured and foul material escaped into the pelvis. The lower part of the abdominal wound became infected, but the patient subsequently did well. The specimen showed a tubular solid growth of the whole of the cervix, which extended from the portio vaginalis to the os internum, and was densely hard. The cavity of the uterus was distended with purulent *débris.* The growth was a squamous-celled epithelioma. An illustration accompanied the communication.

Remarks by the PRESIDENT, Dr. TATE, Dr. ROUTH, Dr. BLACKER, Dr. EDEN, and Dr. STEVENS.

Dr. CUTHBERT LOCKYER showed a case of double ureter which simulated a parovarian cyst of the right broad ligament. The specimen was obtained from a patient æt. 63, in whom Dr. Routh had noticed an enlarged and tender right kidney for two years previously. Pyonephrosis had been suspected. There was coli bacilluria, for which many injections of autogenous vaccine had been given without improvement. There was a hard, tender, solid lump to be felt in the left posterior quadrant of the pelvis. In March, 1914, the patient began to lose blood from the uterus. As the menopause occurred 20 years previously at the age of 43 years, this latter symptom raised the question of malignancy starting in the body of the uterus. At the operation the hard body to the left of the uterus proved to be an isolated calcareous myoma adherent to the rectum and to the back of the left broad ligament; its shape suggested that it originally had a pedunculated attachment to the uterus. Above this independent growth, but quite separate and distinct, lay a solid tumour of the ovary, which proved to be malignant. The uterus together with tumours above mentioned were removed. The right broad ligament contained a cystic swelling of the size of an orange. This proved to be a dilated ureter twisted upon itself. In size it corresponded to a distended coil of small intestine. This hydro-ureter was removed; the corresponding kidney was left *in situ.* The contents of the ureter were found after operation to be two calculi (blocking the lower twisted portion) and foul stagnant urine. Six weeks later a perinephric abscess was opened, since when the kidney has given no trouble. The cause of the uterine hæmorrhage was two myomatous polypi and endometrial hyperplasia. The uterus was not malignant.

Remarks by Dr. ROUTH and Dr. EDEN.

Dr. HERBERT SPENCER read a short communication on a

CASE OF EXTENSIVE CANCER OF THE CERVIX WITH PYOSALPINX, WELL SEVEN YEARS AFTER WERTHEIM'S HYSTERECTOMY.

The patient was aged 28. She had been examined by an obstetric physician in a general hospital in London, who advised her to go into the cancer ward of the institution, as no operation could be done. The cervix was occupied by a large ulcerated growth as big as a small apple, which distended the vagina. The uterus was fixed by thickening in the left broad ligament, and the left sacro-uterine ligament; the thickening was not nodular. Operation was performed at University College Hospital on February 16th, 1907. The cervical growth was first curetted and cauterised, and several protruding masses were cut off with scissors. A solution of formalin (10 per cent.) was then applied. The operation was rendered difficult owing to the presence of bilateral pus-tubes, which were adherent to the pelvis and rectum. The separation of the left ureter was also difficult. No glands were removed. A small abdominal drain was used. Urine escaped by the abdominal drainage tube for a few days, and afterwards by the vagina. The patient recovered and left for Canada where a vesical fistula was found and closed by Dr. Marlow, of Toronto. Dr. Spencer examined the patient every year for four years after operation and found no recurrence. In a letter from Canada dated March 24th, 1914, the patient reported herself as in the best of health. An illustration of the growth accompanied the paper.

Remarks by the PRESIDENT and Mr. DREW.

Dr. HERBERT SPENCER, replying, did not think Wertheim's operation was as good as vaginal hysterectomy with the cautery for *early* cases of squamous carcinoma of the portio; but for extensive growths and for adeno-carcinoma it was much better.

Dr. THOMAS G. STEVENS read a short paper on "Ante-Partum Hæmorrhage," which will be found on page 618.

CLINICAL SECTION.

MEETING HELD FRIDAY, DECEMBER 11TH, 1914.

The President, SIR FREDERIC EVE, in the Chair.

EXHIBITION OF CLINICAL CASES.

DR. ALEXANDER MORISON showed a case of precordial thoracostomy for heart disease. The patient, a boy, æt. sixteen, was stated to have been in good health and capable of athletic exercise until Christmas, 1913. He had played football weekly from October till late in December. He then became breathless and had severe palpitation. No history of rheumatism or scarlet fever was obtained. He was admitted to hospital in February, 1914, with tachycardia, irregular action of the heart, breathlessness, and a mitral systolic bruit. The area of cardiac dulness was much increased; powerful heaving of the left ribs and cartilages from the fourth to the sixth and movement of the sternum were noticed. He was rendered comfortable by rest and taking tincture of digitalis, but without any diminution of thoracic movement, and was discharged in April feeling comfortable. He was told to return if again distressed, for precordial thoracostomy. He did so in May, and was again admitted. The operation was performed by Mr. Mower White in June, when 4½ in. and 5½ in. of the fifth and sixth ribs and cartilages respectively were removed. No costo-pericardial adhesions were found. Since then he had been comfortable, but still required tincture of digitalis. The object of the operation was to relieve the enlarged heart of the labour of raising the chest wall as well as driving blood.

DR. ARTHUR F. HERTZ showed a case of cardiac achalasia (so-called cardio-spasm). The woman, æt. 36, had complained for ten years of pain under the lower part of the sternum and a choking sensation under the upper part whenever she ate. She had always had an impression that her food had difficulty in getting into her stomach. About two years ago she fell from a ladder and hit her chest; since then she had constantly vomited part of the food after every meal; it came up quite undigested, but mixed with a considerable amount of mucous saliva. During the night she frequently woke owing to regurgitation of her evening meal through her nose; the food was now sour, especially if several hours had elapsed since the meal, in contrast to the food brought up during meals, which was never sour. The condition became steadily worse until nine weeks ago, when she ceased to be able to keep down any solid food at all. During the three days before she was seen, six weeks ago, no food had been retained at all. An X-ray examination showed that the whole œsophagus was dilated, the obstruction being at the cardiac orifice of the stomach. There was violent peristalsis in the œsophagus, but the food only trickled with extreme slowness into the stomach. The condition was diagnosed as cardiac achalasia, and a mercury tube was passed. This met with no obstruction at the cardia, and the patient had since been able to retain her food, unless it was insufficiently masticated, by passing the tube immediately before each meal.

The term "achalasia" (ἀ, not; χαλάω, I relax) was coined for him (Dr. Hertz) by Sir Cooper Perry to replace the term "spasm," which was incorrect for the following reasons:—(1) Hypertrophy of the cardiac sphincter is never observed after death, even if the obstruction has lasted for twenty or more years, although long-continued spasm would necessarily lead to hypertrophy. (2) The mercury tube passes without any sense of obstruction through the cardia, which would be impossible if a spasm were present. (3) The mercury tube can be withdrawn without any difficulty, whereas it would be grasped by the sphincter were cardio-spasm really present. He believed that the condition was due to the absence of the normal relaxation of the cardia, which should occur when each peristaltic wave reached it. Similarly, many cases of so-called pylorospasm were due to pyloric achalasia, and ileo-cæcal achalasia was the most frequent cause of ileal stasis.

Dr. ARTHUR F. HERTZ and Mr. C. H. FAGGE contributed the notes of a case of spontaneous gastroenterostomy with subsequent perforation and recovery after operation. The patient was a woman, æt. 48, who for six years had suffered from indigestion, the pain occurring from one hour to an hour and a half after food. Vomiting and hæmatemesis had been present. In 1913 she had been treated for gastric ulcer. In 1914 she developed sudden violent pain in the epigastrium, and the diagnosis of perforated gastric ulcer was made. At the operation Mr. Fagge found an opening between the stomach and jejunum—i.e., a gastro-jejunostomy had taken place. Secondary perforation had followed. The parts were left *in situ*, and protected by suturing the jejunum to the stomach and omentum. She had since left the hospital, perfectly well. X-rays showed that the stomach was small, and emptied after 20 minutes through the gastro-jejunostomy opening, very little bismuth passing through the pylorus.

ROYAL ACADEMY OF MEDICINE IN IRELAND.

SECTION OF MEDICINE.

MEETING HELD FRIDAY, NOVEMBER 20TH, 1914.

The President of the Academy, DR. WALTER SMITH, in the Chair.

THE THRESHOLD OF DISEASE.

THE PRESIDENT of the Section, Dr. J. A. Lindsay, read an address on this subect. Dealing with the problem of early diagnosis, he chose four subjects for special consideration. These were endocarditis, gastric cancer, disseminated sclerosis, and pulmonary tuberculosis.

In acute rheumatism, endocarditis was extremely common in adults and almost the rule in children. Muffling of the first sound at the apex, slight increases in cardiac dulness, and arrhythmia were suspicious signs. Prolonged rest in these cases was most important.

In a patient of fifty who had previously had a good digestion, and who was not suffering from renal or hepatic disease, cancer might be suspected if he took a dislike to flesh meats, exhibited some loss of flesh and debility, and occasionally vomited. The absence of free HCl was the rule. Hæmatemesis was rarely an early symptom.

Taken as a whole, the following symptoms were highly suggestive of early disseminated sclerosis—transient disturbance of vision, impairment of bladder control, paræsthesia of one or more limbs, diminution of abdominal reflex, loss of tone of sphincter iridis, giddiness, and emotional instability.

No laboratory tests other than finding tubercle bacilli in the sputum were convincing in making a diagnosis of incipient phthisis. Calmette's test, von Pirquet's, and Arneth's, and the opsonic index method had a very limited value. Early and very suggestive symptoms were loss of flesh, slight afternoon pyrexia, cough and acceleration of the pulse. The first physical signs in the chest were auscultatory, and consisted of hardness or weakness of the breath sounds. Crepitations came later. Slight hæmoptysis and night sweats were very significant. X-rays were of some value, but the interpretation of the skiagram was very difficult. Quite early cases were for the most part amenable to treatment.

Dr. O'CARROLL tendered to the new President the thanks of the Section for his address, which, from both the literary and medical aspects, was a treat to listen to. As to pulmonary tuberculosis, he rather thought the debate as to the value of percussion and auscultation was a debate as to individual experience; one was generally impressed by the method by which he got the most information. He referred to a statement made by a Continental writer that the specific diagnostic sign of phthisis was the *râle*, which evidently indicated that no amount of percussion change would settle the question of diagnosis of pulmonary tuberculosis until the crackling was heard. He did not think one should wait until physical signs in the lungs were found before suspecting phthisis and treating the case as such. He considered that when any perfectly definite physical signs were discovered, and bacilli were present in the sputum, the life value of the patient was very low.

Dr. DRURY agreed as to the supreme value of early diagnosis. He thought if the matter was reasoned out it would be seen that percussion would yield a very late sign as compared with auscultation. He had always believed that long before anything like crackling was discovered the roughening of the expiratory sound was the earliest departure from health. He suggested that in children with rheumatism the diagnosis of the condition of the heart was not the greatest difficulty, but rather to diagnosticate the rheumatism.

Mr. MOORHEAD said that a distinction should be drawn between the early diagnosis of phthisis on which one would start treatment and the early diagnosis from which statistics might be compiled with fairness. He thought the auscultatory signs were the earliest.

Dr. PARSONS said that the finding of no physical signs in the lungs though bacilli were present in the sputum was not a very unusual experience. He thought the auscultatory signs were the earliest. With regard to gastric cancer he mentioned cases where there was progressive gain in weight by the patients. The autopsy in one such patient who died of a ruptured heart showed quite extensive cancer of the stomach.

Dr. LINDSAY, in reply, said that when emphasising the importance of an early diagnosis he did not think of it only from a therapeutic aspect, as numerous instances could be conceived where a reasonable forecast might be of the greatest assistance to the patient and his friends. For all statistical work in connection with phthisis the line ought to be drawn between cases in which bacilli were found in the sputum and those in which they were not, because in one class there could only be a suspicion of the disease, whereas in the other there was positive proof. He had seen a slight temporary increase in weight in cases of cancer of the stomach, but he had never experienced anything like progressive improvement.

LIVERPOOL MEDICAL INSTITUTION.

The President, Major E. W. HOPE, in the Chair.

ATTENTION was drawn by the PRESIDENT to

THE BELGIAN DOCTORS' RELIEF FUND,

and a Committee was formed to work with that of the Royal College of Physicians of London.

Mr. G. P. NEWBOLT read a short paper on

APPENDICITIS IN THE ELDERLY.

He reported three cases and emphasised the fact that appendicitis did occur in those over 60, more commonly than was generally recognised, and also that perforation not infrequently took place without causing any serious initial symptoms.

The paper was discussed by the PRESIDENT, Mr. W. T. THOMAS and Mr. F. LARKIN.

Mr. A. A. BRADBURNE read a short paper on

BILATERAL OPTIC NEURITIS

due to sphenoidal sinusitis in which the left sixth nerve was involved, the vision of the left eye somewhat impaired with severe occipital pain, spontaneous discharge of pus from spheroidal sinus was followed by gradual improvement. Total absence of any trouble in the nose pointed to sinus infection.

Capt. C. Thurstan Holland read a paper on the

X-RAY TREATMENT OF THE WOUNDED

at Fazakerley Hospital, fully illustrated by lantern slides. He carefully described his methods for arriving at the locality of a foreign body in the tissues illustrated. There were numerous lantern slides showing the destruction of bone and the character of the injuries produced by bullets and pieces of shell.

The President opened the discussion.

Dr. Barclay described the instrument which he has devised to facilitate rapid estimation of the depth of foreign bodies, and deprecated indiscriminate removal of bullets.

Dr. Oram described another method based on the series of curves.

Capt. Arthur Evans referred to his experiences in the Boer War, and compared them with his present work at the Fazakerley Base Hospital. He is strongly in favour when removing the bullet from the fleshy parts of making a free incision in order to save the muscles as much as possible. The muscles should be separated rather than cut across. The bullet of to-day makes a much more serious wound than the bullet of the Boer War.

Capt. Holland, in his reply, advocated conservative surgery when dealing with comminuted fractures.

ULSTER MEDICAL SOCIETY.

Meeting held Thursday, December 10th, 1914.

The President, Dr. St. George, in the Chair.

A letter from Dr. Cox, Medical Secretary, *re* communication in *British Medical Journal*, November 28th, pp. 934, 935, entitled "The Belgian Doctors' and Pharmacists' Relief Fund," was read and approved of.

The Chairman gave an address on "Medical Work in the Early Seventies in a County Infirmary." The speaker gave a most interesting account of the condition of things which obtained when first he became connected with hospital work. Cleanliness of hands and instruments was not deemed a *sine qua non*, nor were the arrangements for bathing such as would be tolerated at the present day. Sairey Gamp was still reigning, and her dethronement was not easily effected. Appendicitis was not heard of, though it stalked about under the guise of perityphlitis. Dr. St. George's taking charge in 1882 resulted in many improvements, to which he himself was too modest to allude, but which were mentioned appreciatively by his colleague, Dr. Rentoul, when seconding the vote of thanks proposed by Dr. Wm. Calwell to the Chairman.

Dr. J. E. M'Ilwaine read a paper on "The Clinical Estimation of the Heart Muscle," illustrated by electrocardiograms.

Dr. T. Hennessy, Irish Medical Secretary, Dublin, attended the meeting and gave the latest information as regards the position of the Irish medical profession under the National Insurance Act.

OPERATING THEATRES.

ROYAL FREE HOSPITAL.

Galactocele.—Mr. Willmott Evans operated on a woman, æt. 37, who complained of a swelling in the left breast. She had been married twelve years and had had four children, all of whom she had suckled. During the third lactation she had had inflammation of the left breast, which terminated in an abscess: this healed completely after incision. Early in the fourth lactation she had noticed that the breast was a little irregular in shape, and after this, her last lactation, had come to an end, although the breast returned to its normal size, a swelling persisted in the inner segment. At no time did it cause her any pain, and though it had now lasted some fifteen months her main reason for coming for advice was the fear that the swelling might be cancerous in nature.

On examination, the swelling was seen on the inner part of the left breast; it projected somewhat above the surface, and in size it resembled a large walnut. On palpation a mass was felt in the site of the swelling, and it evidently formed a part of the breast; though firm, it was not hard, and some obscure fluctuation could be felt on it. It was not tender, and the skin over it was unaltered and not adherent to the swelling, which was also unattached to the pectoralis muscle. No enlarged glands could be felt in the axilla. A diagnosis of galactocele was made, and an operation was advised.

After the patient had been anæsthetised, an incision radiating from the nipple and some two inches in length was made over the swelling. The incision was deepened until the wall of the cyst was seen. An attempt was made to dissect out the cyst whole, but the wall, which was thin, soon tore, and white, cheesy matter exuded; about an ounce escaped, and then, the cyst having become flaccid, it was possible to dissect it out. Two deep sutures were inserted, so as to obliterate the cavity left by the removal of the cyst, the skin wound was closed with Michel's clips, and a simple aseptic dressing applied.

Mr. Evans said that the diagnosis of a galactocele is generally not difficult when the circumstances are typical; when a swelling, apparently cystic, develops during lactation and persists after lactation has come to an end, which increases with great slowness, if at all, and causes little or no pain, a diagnosis of galactocele is almost certain to be right. Galactocele can only arise in connection with lactation, for the contents are primarily milk, but as time goes on the more liquid part of the milk is absorbed, and what is left resembles very closely cream cheese. The mode of production of a galactocele is simple. In one way or another a galactopherous duct must have become blocked, so that when during lactation milk is secreted by the corresponding alveoli it cannot escape, but is pent up and distends the ducts and secretory structures so as to form a cyst. Sometimes the cause of the blocking of the duct is obvious; an incision in the breast made for the removal of an adenoma has cut through a duct, and when the wound is healed the cicatricial tissue blocks the duct; that is why in all incisions into the breast the incision should be made in a line radiating from the nipple, for an incision so made is much less likely to wound a lactiferous duct than one which is made transversely. In the case he had just operated upon an abscess had existed in the breast, and when this abscess healed much new fibrous tissue had certainly been formed. It was unlikely that the incision made for the purpose of evacuating the contents of the abscess had anything to do with the formation of the galactocele. Galactoceles are decidedly rare.

The wound healed rapidly. The Michel clips were removed on the fifth day and the deep stitches two days later, and the patient left the hospital ten days after the operation with the wound fully healed.

SPECIAL REPORTS.

BELGIAN MEDICAL MEN AND PHARMACISTS' RELIEF FUND.

	£	s.	d.
Amount previously acknowledged at the Offices of the Medical Press and Circular	114	9	6
Additional list, per London Office—			
Ian Macdonald Esq. (Huelva, Spain)	2	2	0
Per Dr. H. Macnaughton-Jones (further list)—			
"An Old Pupil"	3	3	0
E. Bethell, Esq.	5	0	0
Miss Frances Harrington	2	0	0
The Junior pupils of Harrogate College	10	0	0
Per Miss Giovannetti	3	15	0
Mrs. Hayes	0	10	0
Mrs. Presswell	0	2	6

Correction.—In our list of December 9th Mrs.

F. B. E. Faulkland should be Mrs. F. B. E. Faulkner; and Katherine J. Inayle should read Katherine J. Quayle.

BELGIAN MEDICAL RELIEF FUND (IRELAND).

FIRST LIST OF SUBSCRIBERS.

Total to date, £675 5s.

	£	s.	d.
J. G. Allen	1	1	0
S. H. B. Allison ...	1	1	0
Dora E. Allman ...	1	1	0
Anon.	1	1	0
F. G. Atkins	3	3	0
A. Atock	2	2	0
C. A. Ball	2	2	0
Sir C. B. Ball	5	5	0
C. Preston Ball ...	2	2	0
A. P. Barry	1	1	0
Jerome Barry	0	10	0
John M. Barry... ...	1	0	0
Joseph Beatty ...	2	2	0
Wallace Beatty ...	5	5	0
C. M. Benson	5	5	0
Sir Hawtrey Benson...	2	2	0
Henry Bewley... ...	10	10	0
His Hon. Judge Bird...	5	0	0
A. Birmingham ...	1	0	0
Alexander Blayney ...	10	10	0
J. Booth	1	1	0
Wm. Bradley	1	0	0
F. Brannan	1	0	0
O. Brew (Bray) ...	1	1	0
J. Mitchell Bruce ...	5	5	0
L. Buchanan	1	1	0
Cornelius Buckley ...	1	1	0
Eugene Byrne	2	2	0
H. U. Byrne	2	2	0
M. F. Cahill	2	0	0
Sir Charles Cameron	5	0	0
Sir Arthur Chance ...	5	5	0
Wm. Clifford	1	1	0
The Clinical Club ...	10	10	0
John Coffey	1	1	0
T. J. Considine ...	2	0	0
MacDowel Cosgrave, P.R.C.P.I.	10	10	0
J. Galwey Cooke ...	10	0	0
George Cope	1	1	0
S. M. Cowe	2	2	0
Rt. Hon. M. F. Cox, P.C.	5	5	0
F. C. Crawley ...	5	5	0
J. T. Creery	1	1	0
W. M. Crofton ...	5	5	0
Albert Croly	5	5	0
J. D. Cummins ...	1	0	0
W. A. Cummins ...	1	1	0
N. Cunningham ...	1	1	0
P. J. Cusack	1	1	0
M. E. Cussen	1	1	0
J. T. Daniel	2	2	0
W. J. Dargan ...	2	2	0
Henry Davis	1	1	0
J. H. Davys	1	1	0
W. R. and Mrs. Dawson	3	3	0
J. Marshall Day ...	2	2	0
O'C. J. DelaHoyde ...	1	1	0
Martin Dempsey ...	3	3	0
P. J. Dempsey ...	5	5	0
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J. A. Dockeray ...	1	1	0
Patrick Dolan ...	1	1	0
P. Donnellan	1	0	0
J. E. Dormer	1	1	0
Th. Drapes	1	1	0
H. C. Drury	2	2	0
F. E. J. Dunne ...	2	2	0
Conway Dwyer, P.R.C.S.I.	10	10	0
H. C. Earl	2	2	0
J. T. Elliott	1	1	0
F. C. Ellison... ...	2	2	0
Miss Eustace	1	0	0
H. M. Eustace ...	3	3	0
W. N. Eustace ...	2	2	0
N. M. Falkiner ...	2	2	0
E. M. Fannin ...	2	2	0
A. A. Ferguson ...	1	1	0
P. Ferris	1	1	0
Victor G. Fielden ...	2	2	0
J. Magee Finny ...	2	2	0
C. E. FitzGerald ...	10	10	0
J. F. FitzGerald ...	1	1	0
J. J. FitzGerald ...	1	0	0
Gibbon FitzGibbon ...	2	2	0
T. P. Flynn	1	0	0
Wm. Fottrell	2	0	0
"A Friend"	0	10	0
Wm. Frier	1	1	0
A. Fullerton	2	2	0
Nicholas Furlong ...	1	1	0
W. Verner Furlong...	5	5	0
J. Geraghty	1	1	0
W. J. Gibson ...	1	1	0
T. O. Gilmore ...	1	0	0
G. J. Goldie	5	5	0
T. D. Good	1	0	0
S. T. Gordon	1	1	0
T. K. Greenfield ...	1	1	0
H. C. Groves	1	1	0
C. Denys Hanan ...	3	3	0
Allan H. Hanley, C.M.G.	2	2	0
Richard Hatch ...	1	1	0
M. R. J. Hayes ...	2	2	0
M. J. Hayes	1	0	0
James Henderson ...	2	2	0
Eileen A. Hewitt ...	1	0	0
T. D. Homan ...	1	1	0
S. Wallace Hudson	1	1	0
W. Brown Hunter ...	2	2	0
J. W. H. Jellett ...	1	1	0
Dep. Surg. General Joynt	5	5	0
R. Lane Joynt ...	5	5	0
Miss Kavanagh ...	0	10	0
M. Kearney	1	0	0
J. F. Keenan ...	1	0	0
G. Kelly	1	1	0
W. P. Kelly	0	10	0
J. B. Kelso ...	0	10	6
Hugh T. J. Kennedy	1	1	0
P. J. Kiernan ...	1	1	0
J. W. Killen ...	2	2	0
W. M. Killen ...	2	2	0
R. J. Kinkead ...	1	1	0
T. P. C. Kirkpatrick	10	10	0
M. O'Malley Knott	2	2	0
Wm. Lalor	2	0	0
S. A. Lane	2	0	0
E. Lapper	2	2	0
W. F. Law	1	1	0
W. K. Law	5	0	0
R. R. Leeper ...	2	2	0
W. R. Lemon ...	1	1	0
Sir John Lentaigne	10	10	0
J. A. Lindsay (Belfast)	5	5	0
James Little ...	21	0	0
M. E. Lynch ...	1	1	0
Thomas Lyndon ...	1	1	0
Anthony M'Bride ...	0	10	6
P. A. M'Carthy ...	1	0	0
James M'Closkey ...	1	1	0
Joseph M'Donnell ...	1	1	0
Maurice G. M'Elligott (of Listowel ...	3	3	0
David M'Eniry ...	2	2	0
Thomas M. M'Evoy	2	2	0
A. C. MacGrath ...	2	2	0
F. P. MacLaughlin	3	3	0
E. P. M'Loughlin ...	10	10	0
John M'Michael ...	1	10	0
J. T. Macnamara ...	1	1	0
P. J. Macnamara ...	1	1	0
R. Blake M'Vittie ...	2	2	0
J. C. M'Walter ...	2	0	0
E. J. M'Weeney ...	2	2	0
E. Magennis	1	1	0
W. A. Madill ...	2	0	0
William J. Maguire	1	1	0
R. B. Mahon ...	1	1	0
M. J. Malone ...	2	2	0
Mrs. M. J. Malone	1	0	0
Mrs. F. Manning ...	1	1	0
F. C. Martley ...	2	2	0
Everina S. J. Massy	5	5	0
J. A. Matson ...	1	1	0
Euphan M. Maxwell	1	1	0
G. Pugin Meldon ...	2	2	0
P. Merrin	1	1	0
W. K. Miley	5	0	0
A. Nixon Montgomery	1	1	0
H. C. Mooney ...	2	2	0
Edward E. Moore ...	1	1	0
George P. Moore ...	3	3	0
Sir John W. Moore	5	5	0
T. G. Moorhead ...	5	5	0
T. H. Moorhead ...	2	2	0
J. P. Moran	1	1	0
J. S. Morrow ...	1	1	0
William A. Morton	2	2	0
Edward Murphy ...	2	0	0
John Murphy, F.R.C.P.I.	5	5	0
P. F. Murphy ...	1	1	0
H. Murray	1	1	0
George Myles ...	1	0	0
Thomas Neill ...	1	0	0
George E. Nesbitt ...	2	2	0
J. A. Oakshott ...	2	2	0
C. M. O'Brien ...	5	5	0
Daniel J. O'Brien ...	1	1	0
Kennedy J. O'Brien	1	0	0
Joseph O'Carroll ...	10	10	0
Peter H. O'Connell	1	0	0
Daniel M. O'Connor	1	0	0
W. J. O'Donnell ...	1	0	0
William O'Donnell ...	1	0	0
John O'Donoghue ...	1	1	0
The Odontoblast Club	10	10	0
J. Conor O'Farrell ...	2	2	0
William H. O'Meara	1	1	0
Francis J. O'Reilly	1	0	0
Sir Lambert Ormsby	5	5	0
Cecil Orpin	5	0	0
Gawin Orr	2	2	0
John J. O'Sullivan	1	1	0
George E. Palmer ...	1	1	0
Joseph Petit	1	0	0
Edward Phillips ...	1	1	0
Blacker C. Powell ...	2	2	0
G. A. Pringle ...	2	2	0
Seton Pringle	5	5	0
Miss Purefoy ...	5	0	0
R. Dancer Purefoy ...	10	0	0
F. C. Purser ...	5	5	0
J. J. Purser	2	2	0
James Quirke ...	1	0	0
Sir Joseph Redmond	5	5	0
J. M. Redington ...	1	1	0
Hugh J. Ritchie ...	1	1	0
Lt.-Col. E. A. Roe ...	1	1	0
Charles H. G. Ross	2	2	0
J. Ralph Ross ...	1	0	0
W. S. Ross	0	10	0
T. J. Rossiter ...	1	1	0
R. J. Rowlette ...	2	2	0
R. A. Rutherford ...	1	1	0
Henry M. Scott ...	1	0	0
J. Alfred Scott ...	2	2	0
George Scriven ...	3	3	0
Reginald W. Scully	5	5	0
Edward Sheridan ...	2	2	0
Thomas Sinclair ...	5	5	0
Alfred Smith ...	5	5	0
T. N. Smith	2	2	0
Joseph Smyth ...	1	1	0
Bethel Solomons ...	5	5	0
Alex. B. Stephenson	1	1	0
Edward Stephenson...	1	0	0
Mary S. P. Strangman	1	1	0
Henry Stokes ...	2	2	0
H. Stoney	1	0	0
Johnson Symington...	1	1	0
Robert J. Taaffe ...	1	1	0
Thomas J. Talbot ...	1	1	0
John W. Tate ...	1	1	0
James Taylor ..	1	1	0
Sir William J. Thompson	3	3	0
H. Sneyd Torney ...	3	3	0
David Turner and a Friend	3	2	0
Joseph Wallace ...	1	1	0
Wm. Patrick Walsh	1	1	0
Hugh T. Warnock ...	1	1	0
Joseph J. Waters ...	1	1	0
Robert Waters ...	1	1	0
W. E. Waters ...	1	1	0
Louis Werner ...	5	5	0
Joseph T. Wigham ...	2	2	0
George S. Wigoder ...	1	1	0
T. Henry Wilson ...	5	5	0
Francis A. Winder ...	1	0	0
W. A. Winter ...	3	3	0
Sir Stewart Woodhouse	10	10	0
John F. Woodroffe ...	1	1	0
Sir Robert Woods ...	10	10	0
Albert E. Wynne ...	2	2	0

CORRESPONDENCE.

FROM OUR SPECIAL CORRESPONDENTS AT HOME.

SCOTLAND.

SCOTTISH MEDICAL SERVICE EMERGENCY COMMITTEE.

A MEETING of the Committee was held in the Hall of the Royal College of Physicians of Edinburgh on Saturday, December 5th. Present: The President of the Royal College of Physicians, the President of the Royal College of Surgeons, the President of the Royal Faculty of Physicians and Surgeons of Glasgow, the Deans of the Faculties of Medicine of Glasgow and Edinburgh Universities, and Dr. Ashley Mackintosh, representing the Dean of the Faculty of Medicine of Aberdeen University, Drs. J. C. McVail, J. R. Currie, J. Stevens, and Norman Walker (Convener). Apologies for absence were read from Drs. J. Playfair, J. R. Hamilton, J. Gordon and J. Adams. The Convener reported that there had been numerous applications to the Committee for assistance in procuring locums, and many offers of service from practitioners retired or temporarily unemployed. Though they had not been able to provide direct supply in all cases, the influence of the Committee had been of considerable value in promoting arrangements for the carrying on of the work of the men on service, while the recommendation of the Committee that five guineas should be the maximum fee charged to men serving with the colours had apparently been loyally accepted. From several communications he had received it was evident that the financial arrangements between the men called out and their neighbours who were doing their work were not always satisfactory; and, indeed, in many cases no arrangements at all had been made. It was remitted to a sub-committee to consider whether it would be advisable to issue a series of model arrangements suitable to different varieties of practice which might help in averting difficulties which might arise and to advise on any cases of immediate difficulty brought under the notice of the Convener.

It being evident that more men would before long be called out, the Committee decided to make a fresh appeal for assistance to medical men and women who were in a position to help. A suggestion that the Convener should address a meeting or meetings on the work of the Committee was approved.

Scottish Hospital Unit for Serbia.

Since the outbreak of the war the energies of the National Union of Suffrage Societies have been devoted to the amelioration of the sufferings of the wounded in the European battlefields. The National Union in Scotland organised the Scottish Women's Hospital for Foreign Service, and in this scheme the English section has zealously joined. Already one unit and a detachment has gone to France, and on December 11th the Scottish members of the Serbian unit left Edinburgh. In the Serbian Hospital Unit, which is destined for Uskal, the personnel consists of 32 members of whom 22 are Scottish. The medical and surgical staff comprise Dr. Holway (London), Dr. Soltan (Colchester), Dr. Campbell (Kirkcaldy), Dr. Macphael (Glasgow), and Dr. Wakefield (Kendal). The Matron is Miss M. A. Macdonald (Eskbank, Midlothian). Of the rest of the staff, consisting of nurses, dressers, a radiographer, and servants, all are women except the director and orderly.

Aberdeen University.

A gift of £4,000 has been intimated to the University from Mr. George Skelton Yuill, to constitute a fund which shall be devoted to the practical application of the science and theory of chemistry to the manufactures and industries of Great Britain.

A General Hospital in the Field.

In writing home, Dr. J. C. Pyper, who was assistant to Dr. Roxburgh, Troon, Ayrshire, gives the following account of what a general hospital in the field is like. It is of canvas, he says, and, when erected, it occupies a very large field. It is complete in itself, with X-rays apparatus and operating theatre, and it comprises a medical and a surgical division. It contains from 500 to 560 beds, and the working and feeding arrangements are remarkably efficient. The amount of food is calculated to an ounce, and there is no wastage. All the cooking is done in field kitchens, which contain ovens, stoves and boilers. The sanitary arrangements are also very complete. The staff consists of a Lieut.-Colonel, one Major, 18 Lieutenants, and a Quartermaster. There are also a matron and 30 nurses, and a good number of R.A.M.C.'s who act as nursing orderlies, wardmasters, and sanitary and water squads. The patients are admitted in batches of 100 or so. The great majority of the wounds are slight, chiefly from shell and shrapnel.

New Glasgow Hospital.

The North British Locomotive Company have provided premises to be used as an hospital in the administrative building of their works in Springburn, and have made the structural alterations necessary. The Scottish branch of the Red Cross Society has supplied the equipment. There is accommodation for 150 patients. At the end of one of the three wards of which the hospital consists is a screened-off portion for serious cases, and near it is a large strong room which has been converted into an X-ray room. At the opening inspection of the hospital, Sir Hector Cameron, Mr. Hugh Reid, Dr. J. Maxtone Thom, and Dr. Rowan were among those present.

Prohibition in America.

Mr. W. J. Reid presided at the annual meeting last week of the Glasgow Branch of the Medical Temperance Association, held in the Faculty Hall. He gave an address regarding prohibition in America, showing that the establishment of prohibition in towns had added to their amenity, had increased the comfort of their inhabitants, and had resulted in parents being anxious to have their sons educated at their universities. It had come under his knowledge that it was only in isolated cases that intoxicants could be obtained surreptitiously. In Kansas, a state containing 105 counties, which had enjoyed prohibition for 32 years, the law against alcohol was being enforced as strictly as any other. As to the effect of prohibition, Dr. Reid had never heard it said, during his travels in the United States, that it had done any harm, and he had heard testimonies from both abstainers and non-abstainers in favour of it. For the ensuing year Dr. Reid was elected President; Dr. Murdoch Cameron, Mr. Donald Duff, and Dr. T. K. Monro Vice-Presidents; Dr. Thomas Holmes, Hon. Treasurer; and Dr. John H. Martin, Secretary.

Medical Cases from the Front.

Of the 100 British disabled soldiers constituting the latest arrival at Stobhill Hospital, Glasgow, from the seat of war, only two are surgical cases. The majority of the others are cases of frost-bite. This state of matters shows the hardships which the troops are enduring in the trenches. Most of these 100 men belong to English regiments.

Combatants or Non-Combatants?

On a point which was mooted in this column some time ago medical students have now received some guidance. Sir Donald Macalister, in his recent presidential address to the General Medical Council, expressed the opinion that the need for efficient physicians and surgeons in the field and at home was not less urgent than the need for efficient soldiers and sailors, and that he had felt it his duty to press this consideration on senior students who, though they had nearly completed their curriculum, were ready to forego the prospect of early qualification and to enrol themselves straightway in the combatant forces. Sir Donald has since received a letter from Surgeon-General Sir Alfred Keogh, who says that he agrees that the senior student is best fulfilling his duty by getting his degree and then joining the Army, and that the need for young qualified men will become great, and he should regret if the supply were diminished.

LETTERS TO THE EDITOR.

[We do not hold ourselves responsible for the opinions expressed by our Correspondents.]

THE DUTY OF SENIOR MEDICAL STUDENTS IN THE WAR.

To the Editor of The Medical Press and Circular.

Sir,—In my Presidential Address to the General Medical Council on November 24th I expressed the opinion that "the need for efficient physicians and surgeons, in the field and at home, is not less urgent than the need for efficient soldiers and sailors"; and I said that I had "felt it my duty to press this consideration on senior students, who, though they have nearly completed their curriculum, are ready to forego the prospect of early qualification and to enrol themselves straightway in the combatant forces."

To-day I have received a letter from Surgeon-General Sir Alfred Keogh, which contains the following passage:—"I think with you that the senior student is best fulfilling his duty to the country by getting his degree, and then joining the Army. The need for young qualified men will become great, and I should regret that the supply should be diminished."

As I daily receive letters from senior students and their parents, who desire guidance in their choice of apparently conflicting duties, I shall be grateful if you will make known the opinion held at the War Office on the subject.

I am, Sir, yours truly,
Donald Macalister,
President of the General Medical Council.
Medical Council Office,
299 Oxford Street, London,
December 10th, 1914.

ARTERIAL HYPERÆMIA.

To the Editor of The Medical Press and Circular.

Sir,—Amongst the many excellent papers that have appeared in your valuable journal recently two especially appeal to me. The first by Dr. Heys, October 21st, 1914, on "Arterial Hyperæmia," is, in my opinion, a good and important clinical record. I agree with him, there is a very distinct difference between the hyperæmia produced by constriction and vacuum cups, etc., and that procured by heat. In the former case it is true that one has dilatation of blood vessels, and consequently more blood in the special part being treated, but in the latter one has in addition the element of counter-irritation. In consequence nerve endings are stimulated, leucocytes rush to the part in an excited condition, and carry out the functions so admirably described in Dr. F. W. Andrew's Croonian Lectures, 1910, also in Adami's "Pathology." In all cases of traumatism there is lowering of vitality locally always, also generally if the injury is severe. Consequently pathogenic germs invariably congregate in and around the injured part; I say invariably even if there is no open wound, since no human being is ever germ free. Briefly, leucocytes kill germs, assist in the solution of pathological thickenings of all kinds and in the removal of *débris*. Dr. Heys quotes as one of his most brilliant cases an athlete, young and of magnificent physique, with a local injury, a man whose vaso-motor mechanism and leucocytes were of necessity in splendid working order, ready to answer promptly and vigorously to the stimulus provided by the hot air. He admits that some of his cases do not respond well to hot air treatment. It is positively harmful to apply heat to diseased areas in some feeble people such as advanced and debilitated cases of arthritis deformans, since these people are saturated with toxins and all their mechanisms are feeble, therefore if hyperæmia is produced there is a rush of toxins to the part that may seriously deteriorate the already degenerate tissues.

Some of your readers know that for many years I have advocated the employment of long continued counter-irritation pushed to the extent of causing a raw surface such as is produced by means of a blister or the actual cautery, and multiple acupuncture followed by irritants which cause an eruption of pustules. There is no danger in treating feeble, degenerate people by these means if a reasonable amount of care is exercised since an outlet is provided, and so the toxins are extruded and prevented from damaging the tissues.

The other paper is that by Dr. Horne Wilson on "The Rapid Arrest of Inflammation," December 9th, 1914. It seems to me there is much in this that throws light on the phenomena of counter-irritation and reaction.

I am, Sir, yours truly,
W. J. Midelton.

112 Charminster Road, Bournemouth,
December 10th, 1914.

OPERATIONS FOR APPENDICITIS.

To the Editor of The Medical Press and Circular.

Sir,—"Physician's" letter is a little astonishing. If there is any fact in the practice of surgery that is demonstrated beyond dispute it is the fact that the physician is absolutely useless in cases of acute appendicitis, and of very little use in the chronic phases of that malady. Some few months ago you conferred upon me the privilege of reviewing the recently published book on "Appendicitis," by Mr. Edmund Owen. I would commend this work to the study of a "Physician," and would beg him after its perusal to inform your readers whether he continues to hold his present position. The cases of doubtful diagnosis in appendicitis are comparatively very few; in some of these it is better to operate than to wait developments; whilst the fatal results of delay in cases where the nature of the trouble is clear are indisputable. In the young the operation for appendicitis, when performed at the proper time—*i.e.*, when the inflammation is not virulently acute, can hardly be deemed dangerous. The danger of delay increases with the age of the patient.

I am Sir, yours truly,
Reviewer.

December 10th, 1914.

IRISH CHEMISTS.

To the Editor of The Medical Press and Circular.

Sir,—With your permission, I would draw attention to the very important part played by Irish chemists in the latter decades of the eighteenth century and the opening ones of the nineteenth. Their work has a direct bearing on the production of substitution and synthetic products. But I am sorry to say their names are almost forgotten and their writings almost unknown. As an Irishman, I deeply regret this, and all the more so as I find German chemists are credited with the initiative in this great and fascinating branch of organic chemistry.

We may, I think, date the solutions of the problems which had exercised the ingenuity of Berzelius, Dumas, Laurent, Regnault, Malaguti, and other chemists of the early years of the new century, to the analysis of white precipitate powder by Dr. Robert Kane, Lecturer on Chemistry to the Apothecaries' Hall of Medicine about the year 1831. Guesses at the truth were from time to time made, and Dumas formulated his empirical law of substitutions, and Gmelin had adopted Laurent's theory of chemical constitution. I need not enter into the details of the many theories advocated in the beginning of the last century, of which the copulated ammonia theory, the most generally accepted, received the support of Liebig. Kane's work was slow in producing fruit, but gradually, very gradually, it came to be recognised as the proper solution of the problem; and Gerhardt's theory came to be recognised as a chemical law "théorie des résidus." And finally, Wurtz, by producing compound ammonias, firmly established the accuracy of Kane's analysis and the correctness of his explanation. But until Faraday discovered benzene these researches in organic chemistry had but little commercial value. When, however, the aniline dyes were produced England was engaged too largely in the iron, cotton and woollen industries to give a thought to synthetic medicinal or colouring chemicals; and in time we became so absolutely dependent on Germany that medical men came to believe that to Germans we were indebted for the introduction of synthetic medicines. Kane, on assuming the position of Lecturer to the Apothecaries' Hall, had the serious task of upholding the high reputation of the school. He was immediately preceded by Donovan, whose "Annals of Pharmacy" shows him to have been both as a practical and theoretical chemist in advance of his day. He succeeded Davy, whose many and valuable papers in the "Philosophical Transactions" show that his F.R.S. was the reward of merit. He was the successor to William Higgins, of European repute. Immediately on receiving their charter in 1791, the Governors of the Apothecaries' Hall invited Higgins, who was then with Dr. Beddoes in Birmingham, to accept the position of Chemist and Lecturer on Chemistry to their School and Hall. Two years earlier appeared his great work, "A Comparative View of the Phlogistic and Antiphlogistic Theories," in which he clearly annunciated the law of multiple proportions, thus anticipating Dalton's "Experiments and Observations" of 1802. He retired from the Lectureship in 1795 to become Chemist and Librarian to the Royal Dublin Society. On June 12th, 1806, he was elected F.R.S., but he never presented himself for admission. Some eight years later he brought under the notice of his friend, Dr. Labatt, the antiseptic properties of chlorinated lime, and recommended to him that the nurses in attendance on midwifery cases in the Rotunda Hospital (of which Labatt was then the Master) should be required to wash their hands before attending the patient. And the stamping out of the epidemic of puerperal fever in the hospital in 1810 and 1820 may fairly be ascribed to Higgins. Unfortunately, the nurses did not accurately follow instructions, and chlorinated lime was discredited until its value was rediscovered by Semmelareis in May, 1847.

I am, Sir, yours truly,
George Foy.

Dublin,
December 11th, 1914.

THE STUDENT'S TRAINING.

To the Editor of The Medical Press and Circular.

Sir,—If "Tom A. Hawke, M.D.," had read my last letter with any care before hastening to reply, he would have seen that I do not advocate the banish-ment of physics, chemistry and zoology from the list of subjects to be studied by the medical man, but only the restriction of the time presently spent on these, and the confining of the student's attention to those parts of the subjects having a direct bearing on a medical man's work. The instances of examination questions which I gave in my original letter related one to the manufacture of acetic acid from wood and the other asked what were the cyclostomata. Will "Tom A. Hawke" explain how knowledge on either of these points would be likely in any circumstances to help a medical man in the prosecution of his calling? If a medical man were cast on a desert island and had a retort at hand he might be able, from a knowledge on the subject of the first of the two questions, to provide himself with acetic acid; but probably he and his companions, if any, would be in greater need of other commodities. In any less exceptional circumstances I do not see of what use his knowledge upon either subject would be to him, in a professional sense.

I am, Sir, yours truly,

Glasgow, December 12th, 1914. Observer.

AN IMPROVED (DOYEN'S) MOUTH GAG.

To the Editor of The Medical Press and Circular.

Sir,—I would like to draw the attention of the profession to some improvements in Professor Doyen's mouth gag. Doyen's gag has some good points, or it would not be in general use, yet it also has bad ones:—

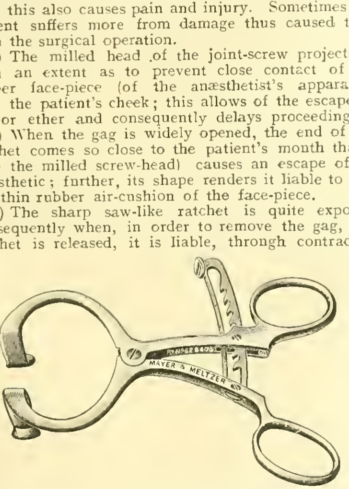
(1) The jaw of the instrument, which happens to be upwards, usually presses against the palate when the mouth is widely opened; this causes pain and occasionally injury.

(2) The lower lip of the patient is liable to be caught between the incisor teeth and the lower jaw of the gag; this also causes pain and injury. Sometimes the patient suffers more from damage thus caused than from the surgical operation.

(3) The milled head of the joint-screw projects to such an extent as to prevent close contact of the rubber face-piece (of the anæsthetist's apparatus) with the patient's cheek; this allows of the escape of gas or ether and consequently delays proceedings.

(4) When the gag is widely opened, the end of the ratchet comes so close to the patient's mouth that it (like the milled screw-head) causes an escape of the anæsthetic; further, its shape renders it liable to tear the thin rubber air-cushion of the face-piece.

(5) The sharp saw-like ratchet is quite exposed, consequently when, in order to remove the gag, this ratchet is released, it is liable, through contraction of the stretched muscles of the patient's jaw, to be driven forcibly backwards and so lacerate the anæsthetist's finger, just as a saw would, if drawn across it. Two practitioners have informed me that they have thus suffered.



(6) The spring is forged solid with the ratchet, and occasionally breaks. This entails several days' deprivation of the use of the instrument while it is being repaired, and a cost of about 10s.

In the opinion of two anæsthetists who have used it, the disadvantages referred to above have been overcome in the gag illustrated here. It was made to my designs by Mayer and Meltzer, 71 Gt. Portland Street, London, W.

I am, Sir, yours truly,

Charles J. Heath, F.R.C.S.,

Late Surgeon, Hospital for Diseases of the Throat.

London, December 9th, 1914.

REVIEWS OF BOOKS.

PHYSIOLOGICAL PRINCIPLES IN TREATMENT. (*a*)

We are not surprised to find that a third edition of this attractive little work has been called for. It presents current physiological views in unofficial garb and gives their bearings on the treatment of disease in an eminently assimilable literary form. Incidentally some very venerable therapeutical dogmas undergo the process of conversion into "exploded ideas," and some very startling innovations are introduced to our notice—witness the scathing indictment of ergot and other vaso-constrictors in the treatment of hæmoptysis and the indications for the exactly opposite treatment—viz., by means of vaso-dilators.

To begin with, the reader is familiarised with the trend of organo-therapy; he is told what it has already achieved and what it may reasonably be hoped to achieve, and the mechanism by which it acts. Light is shed upon the extraordinary delicacy and intricacy of the digestive secretory apparatus, the investigation of which by physiologists suggests blacksmiths taking watches to pieces with pincers.

There is nothing systematic about the book; the author saunters along, picking up a subject here and criticism there, now discussing the mechanical factors in indigestion, now the irregular action of the heart. But whatever topic he touches he illuminates, and no practitioner can peruse the book without adding materially to his value as a therapeutist.

Just a word of criticism. The author's English is a trifle slipshod, as, for instance, when he refers to "Plombières' douche" (page 283); the "this is contrary," etc. (page 202, line 9); the "bowels should be opened *in between*"; "an excess of carbohydrates *are* bad," etc., (157), and so on. Then, too, he speaks of "caffein" instead of caffeine, and of *minims* of blood-pressure (299), and on page 342 he refers to a faintness "that any patient is subject to"—truly an extraordinary example of slipshod English. He refers to grammes and grains in consecutive lines, as on page 200, where we are told that 250 grains of urea . . . . would represent an intake of about 50 grammes of protein," etc. Then, too, he speaks of purin ingestion in grains per pound and of purin excretion in fractions of grammes (page 155 *et seq*).

SIR JOHN FRENCH. (*b*)

Until the other day, strange to say, there was no biography of Field-Marshal Sir John French on the market. It was almost impossible, indeed, to obtain any information as to past career or the brilliant qualities of the British Commander in the field. Now, however, Mr. Cecil Chisholm has supplied the deficiency with a little book, "Sir John French: An Authentic Biography" (Herbert Jenkins, 1s. net). In terse and vivid language he tells the story of Sir John French's life, from his early days in the Navy (how many people know that he was once a middy?) to his most recent exploits. There are interesting chapters devoted to Sir John's reforms at Aldershot in recent years and to his theory of cavalry. Quite obviously the writer has been assisted by near friends of the Field-Marshal and by military experts of the first rank. Field-Marshal Sir Evelyn Wood writes a breezy preface; and the book's frontispiece is a typical pen portrait of Sir John from the pencil of Mr. J. R. L. French. This little book appears at an opportune moment; it is admirably written, and should command a large sale throughout the British Empire.

Dr. E. B. Collings, of Barnsley, is to be congratulated upon his plucky rescue of a woman and her boy who had fallen into the canal in the Smithies district. Without divesting himself of his clothes, Dr. Collings jumped into the water and succeeded in bringing both the victims to the bank.

(*a*) "Physiological Principles in Treatment." By W. Langdon Brown, M.A., M.D., F.R.C.P., Assistant Physician to St. Bartholomew's Hospital, etc. London: Bailliere, Tindall and Cox. 1914. Price 5s.

(*b*) "Sir John French: An Authentic Biography." By Cecil Chisholm, M.A. (Herbert Jenkins.) 1s. 1914.

MEDICAL NEWS & PASS LISTS.

Edinburgh and Belgian Medical Relief.

A most successful and enthusiastic meeting was held in the Obstetrical Society's Rooms at Edinburgh on Wednesday evening last, under the Presidency of Sir J. Halliday Croom.

Previous to the meeting a dinner was given by the President, Prof. Jacobs, of Brussels, being the guest of the evening.

At the meeting Sir Halliday Croom introduced Prof. Jacobs, who gave a most striking address, illustrated by lantern slides, to a deeply interested audience. Quite distinct from all ordinary subscriptions the meeting itself subscribed spontaneously one hundred guineas, which were presented to Prof. Jacobs by the President. A cordial vote of thanks to Prof. Jacobs was most felicitously proposed by Sir Alexander Simpson, and seconded by Sir James Affleck.

The money subscribed at the meeting is quite independent of the fund promoted by the Royal Colleges of Physicians and Surgeons of Edinburgh, which will be raised by the profession. It was a purely spontaneous gift to be administered as Prof. Jacobs considers best at the present time.

The Royal Surgical Aid Society.

The annual meeting of the Royal Surgical Aid Society was held last week at the Mansion House under the presidency of the Lord Mayor. It was reported that during the fifty years of the Society's work no fewer than 856,696 appliances had been distributed. The Chief Rabbi said that the poor soldier who had lost a limb and had become crippled for life in the interests of his country had a right to demand not charity but justice in the same way that poor crippled children had a right to demand help whether in the form of an artificial limb or surgical aid, which would make their pathway through life less hard, less grievous, and less bitter. A sum of £348 was collected at the meeting. A vote of thanks was given to Sir Frederick Treves upon resigning the post of hon. consulting surgeon after ten years' service.

The National Insurance Act.

It is announced that on and after January 1st next certain new arrangements in respect of the certificates for medical benefit under the Insurance Act will come into operation.

The scheme has been framed by the National Insurance Commissioners after consultation with members of the medical profession and representatives of approved societies of all types. It imposes for the first time a uniform procedure on all panel practitioners.

The form of certificate for "declaring on" the fund will be obtainable thereafter not from the approved society, but from the panel doctor, to whom application should be made on the first day the insured patient becomes incapable of work. Afterwards an intermediate certificate will be issued by the medical attendant weekly. A final certificate will be issued the day before the patient is ready to go to work.

Bogus Doctor Sentenced.

The trial took place last week at the Central Criminal Court, before the Recorder, of John Cubbin, who pleaded "Guilty" to indictments charging him with giving false death certificates and with committing perjury at three inquests.

For the prosecution it was stated that the death certificates were signed by the prisoner in the name of Harrison, describing himself as "M.R.C.S. and L.R.C.P." In 1900 the prisoner was convicted of giving a false medical certificate, and he was on subsequent dates sentenced to various terms of imprisonment, including five years' penal servitude for bigamy in 1903 and five years for a similar offence in 1908. In the name of "Dr. Munro," Cubbin, who had had some medical training, became assistant to a doctor in London, but he left that employment, and in January last walked into the dispensary of Dr. Allen, in Bethnal Green, stating that he was Surgeon-Major Harrison and that he was engaged at the War Office in examining recruits. The prisoner offered his services as assistant to Dr. Allen, who believed that the prisoner was a registered medical practitioner, and engaged him as assistant. The prisoner later pretended that he had inherited a baronetcy and had visiting cards printed with the titles "Sir," "Surgeon-Major," and "D.S.O." It was only fair to the prisoner to say that he treated the patients with skill.

In defence the prisoner expressed his sorrow, and observed, "I hope you will realise the little plant of virtue that blooms in my breast." He had had medical training at Montreal and Vienna and he had a reputation for skill and kindness among the poor in Bethnal Green, which would continue to live after his body had crumbled away. There was some good in him which was ready to burst into flame if he was given another chance.

Dr. Allen, in reply to the Recorder, said the patients spoke well of the prisoner and there were no complaints about him. In his opinion, the prisoner was perfectly competent. The prisoner came to the surgery in the evenings.

In sentencing the prisoner to three years' penal servitude, the Recorder observed that he was a very dangerous man.

Royal College of Surgeons in England—Bradshaw Lecture.

The Bradshaw Lecture will be delivered in the Theatre of the College by Sir Frederic Eve, F.R.C.S., on Tuesday, December 15th, at 5 p.m. precisely. The subject of the lecture will be "Acute Hæmorrhagic Pancreatitis, with remarks on the Ætiology of Chronic Pancreatitis." Fellows and Members of the College are invited to attend. Students and others who are not Fellows or Members of the College, will be admitted on presentation of their private visiting cards.

University of London.

The Paul Philip Reitlinger Prize, offered this year for an essay embodying the result of research work on a medical subject, has been awarded to Alfred Hope Gosse, M.A., M.B. (Camb.), M.R.C.P., London Hospital Medical College, for an essay on "The Heart in Acute Rheumatism, with special reference to Graphic Methods of Investigation." The prize, this year of the value of £40, was founded with funds given to the University by Mr. Albert Reitlinger, in memory of his son, a student of St. George's Hospital Medical School, who died on December 3rd, 1911. Next year the prize will be offered for the best essay on "The Economic Condition of the People of England in 1815, in comparison with the present day."

University of Oxford.

In a Congregation held on December 12th, the following degrees were conferred:—B.M.—F. W. Browne, Wadham; W. Brown, Christ Church, H. G. Morris, University; G. A. Maling and G. S. Robinson, Exeter; B. E. Walls, Lincoln; V. T. Ellwood, Pembroke; C. H. Carlton, St. John's; L. R. Broster, Trinity; F. C. Gladstone, Pembroke; H. M. Pope, Lincoln (in absence).

University of Cambridge.

At a Congregation held on December 11th the following degrees were conferred:—M.B.—H. Hartridge, King's; C. R. A. Thacker, Downing.

The University of Sheffield.

The Council, at its meeting last week, made the following appointments:—William MacAdam, M.A., M.D., B.Sc.Glasg., D.P.H.Cam., to the post of Demonstrator in Public Health; T. Chetwood, M.B. Lond., D.P.H.Oxon., M.R.C.S., L.R.C.P., to the post of Lecturer on Hygiene in the Training Department;

H. B. Leighton, A.R.I.B.A., to the post of Junior Lecturer and Demonstrator in the Department of Architecture.

Dublin University.

The following candidates have passed the Preliminary Scientific Examinations in the School of Physic (Trinity College):—

Botany and Zoology.—Mary C. Sheppard, William A. C. Dowse, John H. B. Murphy, Henry Maxwell, Johannes T. Mynhardt, George Malone, Jessie Gilbert.

Chemistry and Physics.—Eric J. Lyndon, Mary C. Sheppard, Alfred J. Beckett, William B. Briggs, William L. Young, Percival A. Dormer, Eric S. E. Mack, William Sweetman, Herbert W. McAuliffe, Kenneth M. Greer, *Frederick W. Godbey, *Henry Maxwell, Jason G. Bird, *James J. Griffin, *William A. Shannon, *Crawford L. Wilson, Lionel Wigoder.

Intermediate.—Part I.: Anatomy and Medicine.—Joseph R. Brennan, Patrick Rocks, Joseph G. Bird, Henry J. Rice, Paul H. S. Smith, David S. Prentice, Marie A. Hadden, William F. Wicht, Hirsh Brill, Thomas H. R. McKiernan, Philip A. Hall, Rita Henry, Millicent Hamilton-Johnstone, Robert W. Pritchard.

Part II.: Anatomy and Physiology.—Thomas P. Chapman, Charles L. McDonogh, James B. Taylor, Louis Blumberg, Edward Lipman.

Final.—Part I.: Materia Medica, Medical Jurisprudence and Hygiene and Pathology.—Esther V. Adderly, Charles H. Comerford, Joseph H. C. Walker, Frank Healy, Cecil F. Brady, Mortimer M. Russell, George W. Doran, Thomas E. B. Beatty, William Hunt, John A. C. Kidd, Thomas W. Sweetman, Leyburne Murphy, James E. Jameson.

Final.—Part II.: Surgery.—Frederick Harris, George B. Hadden, Edward P. Vickery, Geoffrey A. Hoffman, Eric A. Lumley, Edward L. F. Nash, David S. Martin, Edward G. Fish, Hilda M. Marsh, Edmond Robinson.

Final.—Part II.: Medicine.—Eric A. Lumley, Frederick Harris, Walter J. Ronan, Edward P. H. Vickery, Bertrand C. O. Sheridan, Francis A. L'Estrange, Amos G. Varian, Robert A. Anderson, George B. Hadden, Kathleen D. Wallace, Joseph P. Quinn, Robert W. Chapman, Frederick R. Dougan, David S. Martin, Thomas J. L. Thompson.

Final.—Part II.: Midwifery.—Isaac W. Corkey (high marks), Edmund D. T. Hayes, Eric W. Craig, Richard W. Shegog, Violet M. Deale, Eugene J. McSwiney, Herbert Mitchell, Douglas C. Pim, Geraldine Murphy, Hilda M. Marsh, George Stanton, Herbert Daniel, Christopher C. Albertyn, Edward Mannix, Andrew W. P. Todd, Sydney W. Fisher, Francis J. O. King, Maurice B. King, David H. Hall, Cecil M. West, Joseph H. C. Walker, Alfred W. D. Magee, Arthur C. Bateman, George Joughin, Andrew J. Horne, David S. Martin.

Final Dental (B. Dent Sc.).—Herbert Wright.

*Equal.

Royal College of Surgeons of England.

At a meeting of the Council of the Royal College of Surgeons last week, with Sir Watson Cheyne, President, in the chair, the following members, having passed the required examinations and conformed to the by-laws, were admitted Fellows of the College:—J. H. Barclay, M.B.Durh., L.R.C.P., London Hospital; G. W. Beresford, L.R.C.P., London Hospital; R. M. de Mowbray, L.R.C.P., St. Thomas's; P. G. Doyne, B.A.Oxon., L.R.C.P., Oxford Univ. and St. Thomas's; R. N. Geach, L.R.C.P., St. Bartholomew's; B. W. Howell, M.B., L.R.C.P., St. Bartholomew's; D. W. Hume, M.B., L.R.C.P., St. Bartholomew's; and C. Noon, L.R.C.P., St. Bartholomew's. The following successful candidate, not being a member, was also admitted a Fellow:—D. Green, M.B., Sheffield University and St. Bartholomew's.

The following ladies were admitted members:—Misses M. K. Bishopp, H. G. Johnson, and M. Woods, of the London School of Medicine for Women and the Royal Free Hospital.

L.D.S.—The following candidates having fulfilled the requirements of the dental and surgical sections of the Board of Examiners in Dental Surgery, were admitted licentiates:—S. R. Bacon, J. M. Barnes, A. E. Barnett, R. H. Bebb, M. K. Butler, H. C. Carter, H. Cartman, L. E. Claremont, W. E. Coe, W. T. Cooper, C. J. Crocker, D. R. Curnock, A. C. Dean, W. E. Dodd, H. M. Fisher, C. L. Hicks, W. O. Hughes, P. E. Jessop, W. G. Lloyd, A. H. J. Miller, T. D. Muirhead, L. E. C. Peckover, A. G. D. Pridham, S. V. Shrimpton, F. E. Smith, D. Thorne, V. J. Thurston, C. J. L. Wells, F. E. Welton, C. L. B. White, W. T. Williams, E. J. Winstanley, S. A. Withers, F. B. Yonge.

The resolution passed at the recent meeting of Fellows and Members "affirming the desirability of admitting Members to direct representation on the Council" was considered. The Council expressed the opinion that as the matter referred to was considered by them in March last they could see no advantage in reopening the discussion at the present time.

Royal College of Surgeons in Ireland.

The following candidates have passed the undermentioned Examinations, November, 1914:—

Primary Fellowship Examination.—Alice B. Chance, Edward P. Leavy.

Final Fellowship Examination.—Arthur Chance.

First Dental Examination.—George A. Fitzgibbon, Ralph H. Ford, Luke B. Leonard, William J. Maher.

Final Dental Examination.—Abraham F. Carbury, John W. E. Graham, Martin D. Higgins, Frederick A. McKinney, John Marron, John L. Moulang, Percy J. Polson, Norman E. Stephens, Michael A. Sullivan, Stephen L. Wilson.

Army Medical Service.

R.A.M.C.—To be temporary Lieut.-Colonels: Major A. E. J. Barker, F.R.C.S., 3rd London General Hospital, T.F. (November 12th); Sir Thomas Myles, M.D., F.R.C.S.I. (November 21st); Sir Charles B. Ball, Bt., M.D., F.R.C.S.I., Captain Sir W. A. Lane, Bt., M.D., F.R.C.S., 2nd London General Hospital, T.F. (November 22nd); Major Sir Frederick S. Eve, Knt., F.R.C.S., 2nd London General Hospital, T.F., Major J. Swain, M.D., F.R.C.S., 2nd Southern General Hospital, T.F. (December 1st); Major W. A. Turner, M.D., 4th London General Hospital, T.F. (November 3rd).

The following have been appointed temporary Lieutenants:—K. D. Falconer, M.B., W. A. Murphy, M.B., L. W. Bain, M.B., B. C. Ashton, M.B., W. de M. Hill, J. MacGregor, M.D. (November 23rd); J. C. Venniker, M.D., F.R.C.S.Edin., C. D. Rankin, M.D., R. W. Duncan, C. J. A. N. Mercier, M.B., C. Lundie, M.B., T. Perrin, M.D., A. Galletly, M.B. (Nov. 24th); A. Davies, M.D., J. Spencer Daniel, M.B. (November 26th); W. H. Wotton (November 28th); E. F. O'Connor, M.B. (November 29th); L. H. I. Bell, M.B., H. Carson, M.B., R. J. English, M.B., C. J. Morton, M.D. (November 30th); J. E. Barnes, M.B., W. H. Neil, H. Dunkerley, H. F. G. Noyes, M.B., B. J. Mullin, R. Cope, R. M. Soames, M.B., W. A. Troup, M.B., C. H. Mills, M. Floulkes, J. N. Griffiths, M.B., C. H. Harbinson, M.B., J. F. O'Malley, F.R.C.S., J. H. Wilson, R. W. Willcocks, M.B., A. N. Leeming, M.B., N. J. Sinclair, M.B., W. S. Evans, H. M. Joseph, M.B., T. R. H. Blake, M.B., O. P. N. Pearn, J. A. N. Scott, M.B., J. F. McG. Sloan, M.B., D. R. Williams (December 1st); Lieut. E. A. Seager relinquishes his temporary commission (December 7th).

Mr. Alexander Miles, F.R.C.S., Lecturer on Clinical Surgery in the University of Edinburgh and surgeon at the Royal Infirmary of Edinburgh, and Mr. Thomas Rankine, have gone to Dunkirk as volunteers for the Edinburgh and Border Hospital there, the latter taking with him his X-ray apparatus.

The wounded soldiers and sailors in our hospitals are in need of new laid eggs, and to meet the demand, which amounts to no fewer than 200,000 eggs weekly, a national egg collection has been instituted, with the approval and support of the War Office. All promises of eggs or money should be sent to the hon. secretary, Mr. R. J. Dartnall, 154, Fleet Street, London, E.C.

NOTICES TO CORRESPONDENTS, &c.

☞ Correspondents requiring a reply in this column are particularly requested to make use of a *Distinctive Signature or Initial*, and to avoid the practice of signing themselves "Reader," "Subscriber," "Old Subscriber," etc. Much confusion will be spared by attention to this rule.

SUBSCRIPTION.

Subscriptions may commence at any date, but the two volumes each year begin on January 1st and July 1st respectively. Terms per annum, 21s; post free at home or abroad. Foreign subscriptions must be paid in advance. For India, Messrs. Thacker, Spink and Co., of Calcutta, are our officially-appointed agents. Indian subscriptions are Rs. 15.12. Messrs. Dawson and Sons are our special agents for Canada. For South Africa, The Record Publishing Co., Cape Town. Messrs. Geo. Robertson and Co., of Sydney and Melbourne, are our special agents for Australia.

Contributors are kindly requested to send their communications, if resident in England or the Colonies, to the Editor at the London office, 8, Henrietta Street, Strand; if resident in Ireland to the Dublin office, in order to save time in reforwarding from office to office. When sending subscriptions the same rule applies as to office; these should be addressed to the Publisher.

Reprints.—Reprints of articles appearing in this Journal can be had at a reduced rate, providing authors give notice to the publisher or printer before the type has been distributed. This should be done when returning proofs.

M.B.Lond. (Salford).—According to the last medical directory, there is an increase of 352 names in the number of registered practitioners over 1913 in New York, New Jersey and Connecticut.

CALENDARS FOR 1915.

A neat and attractive calendar for 1915 has been issued by Mellin's Food, Ltd., who inform us that they are prepared to send a copy, post free, to the first thousand readers of this journal who apply for the same to Stafford Street Peckham, S.E., enclosing this announcement cut out, together with two penny stamps.

Mr. T. Smith (Hackney).—Much evil is wrought by the long indiarubber tube attached to the old-fashioned feeding-bottle. It has been suggested that the sale of these atrocities should be prohibited, and at least one large municipal health authority has issued a circular to shopkeepers warning them of the risks attached to their sale, and advising them not to recommend them to customers.

Dr. L. Veerney (Rome) is thanked for his communication. As, however, the list has been suspended on account of the war, we regret our inability to entertain his proposal.

Meetings of the Societies, Lectures, &c.

Wednesday, December 16th.

Royal Society of Medicine (Section of the History of Medicine) (1 Wimpole Street, W.).—5 p.m.: Papers by Dr. George Peachey: A Seventeenth Century Medical Superstition; Mr. C. J. S. Thompson: The Apothecary in England from the Fourteenth to the Sixteenth Century.

Royal Microscopical Society (20 Hanover Square, W.).—8 p.m.: Paper:—Mr. J. E. Barnard: X Rays in Relation to Microscopy.

Thursday, December 17th.

Royal Society of Medicine (Section of Dermatology) (1 Wimpole Street, W.).—5 p.m.: Exhibition of Cases (at 4.30 p.m.):—Dr. Knowsley Sibley: Case of Angiokeratoma. Other cases will be shown.

Friday. December 18th.

Society of Tropical Medicine and Hygiene (11 Chandos Street, Cavendish Square, W.).—8.30 p.m.: Paper:—Dr. A. Balfour: Tropical Problems in the New World (illustrated by slides).

Vacancies.

Children's Hospital, Dublin.—Assistant Surgeon. Immediate application to the Hon. Secretary. (See advt.)

Certifying Factory Surgeons.—The Chief Inspector of Factories announces the following vacant appointments:—Crowle (Lincoln), Shildon (Durham), Tobermory (Argyle).

Swansea General and Eye Hospital.—House Surgeon. Salary £125 per annum, with board, washing, and attendance. Applications to W. D. Hughes, Secretary.

City of Westminster Union.—Second Assistant Medical Officer. Salary £160 per annum, with board, residence, and washing. Applications to the Medical Superintendent.

City of Westminster Union.—Third Assistant Medical Officer. Salary £140 per annum, with board, residence, and washing. Applications to the Medical Superintendent.

City of Birmingham.—Assistant Resident Medical Officer, Little Bromwich Fever Hospital. Salary £200 per annum, with board and residence. Applications to the Medical Officer of Health, the Council House, Birmingham.

Darenth Industrial Colony for the Feeble-Minded, Dartford, Kent.—Third Assistant Medical Officer. Salary £250 per annum, with board, lodging, and washing. Applications to the Clerk to the Metropolitan Asylums Board, Embankment, E.C.

West Sussex County Mental Hospital, Chichester.—Second Assistant Medical Officer. Salary £250 per annum, with furnished apartments, board, laundry, and attendance. Applications, stating qualifications, to the Medical Superintendent.

National Maternity Hospital.—Assistant Master. Salary £50 per annum. Applications to the Secretary. (See advt.)

Appointments.

Dillon, Frederick, M.B., Ch.B.Edin., Clinical Assistant at the West End Hospital for Diseases of the Nervous System.

Field, O., M.D.Edin., Certifying Surgeon under the Factory and Workshops Acts for the Battersea District of the county of London.

Gilliland, Hans, M.B.Edin., Medical Superintendent of the Whiteabbey Sanatorium, Belfast.

MacAdam, William, M.D., B.Sc.Glasg, D.P.H.Camb., Demonstrator in Public Health in the University of Sheffield.

Shoolbread, Thomas B., M.B., C.M.Edin., Resident Medical Officer to the Dispensary, Carlisle.

Births.

Baldwin.—On December 7th, at 6 Manchester Square, W., the wife of Aslett Baldwin, F.R.C.S., of a son.

Bower.—On Saturday, December 5th, at Viewfield, Stretton, near Warrington, the wife of H. E. Bower, M.D., of a daughter.

Burra.—On December 3rd, at Little Kimble, the wife of L. T. Burra, M.D., of a daughter.

Campbell.—On December 11th, at 8 Rutland Square, Edinburgh, the wife of Basil Patrick Campbell, M.D., F.R.C.S.Ed., of Brechin, Forfarshire, of a son.

Davis.—On December 6th, at Amritsar, Punjab, wife of Rev. G. Brocklesby Davis, M.D., of a daughter. Indian and Australian papers, copy.

Evans.—On December 7th, at 22 Church Street, Kidderminster, the wife of O. C. Penrhys Evans, M.D., of a daughter.

Napier.—On December 9th, at Jhansi, Central Provinces, India, the wife of Captain A. Harper Napier, I.M.S.—a son.

Marriages.

Colbatch Clark: Dudding.—On December 10th, at St. Lawrence's Church, Canon Pyon, Herefordshire, Henry Colbatch Clark, M.R.C.S., L.R.C.P., of Wellington, Hereford, younger son of John Colbatch Clark, of Brighton, to Florence Mary, eldest daughter of the late Frederick Walter Dudding and Mrs. Dudding, of Baylham House, Ipswich.

Cooper: Fenning.—On December 10th, by licence, at the Congregational Church, Purley, Evelyn Ashley Cooper, Lieutenant, Royal Army Medical Corps, elder son of Mr. and Mrs. A. E. Cooper, of Arborfield, Purley, to Florence Winifred, only daughter of the late Martin Robert Pfenninger, of Zurich, and of Mrs. Henry Polge, of Elladene, Croydon.

Mathew: Grant Cook.—On December 9th, at Christ Church Galle Face, Colombo, Dr. Philip Walter Mathew, eldest son of J. Walter W. Mathew, of 13 Mont le Grand, Exeter, to Agnes Gwendolen, daughter of Mrs. Grant Cook, of Avoca, Dehiwala, Colombo.

Simpson: Bedell-Sivright.—On December 12th, very quietly, at St. Paul's Church, Sheerness, Alexander Simpson, Surgeon, Royal Navy, eldest son of Alexander Simpson, Banff, to Catherine, second daughter of W. H. R. Bedell-Sivright, of Southouse, Mid Lothian.

Sutcliffe: Murray.—On December 7th, quietly, on account of the war, at the Cathedral, Newcastle-on-Tyne, Lieutenant Arthur Sutcliffe, M.B., B.A., Royal Army Medical Corps, youngest son of John Sutcliffe, Hazelwood, Hebden Bridge, to Gladys, only daughter of Dr. and Mrs. Murray, Salisbury House, Newcastle-on-Tyne.

Wilson: Isberg.—On December 7th, 1914, at Rushbrooke Church, Queenstown, quietly, owing to the war, by Special Licence, Staff-Surgeon Frederick G. Wilson, M.B., B.S., Royal Navy, son of Mr. Richard T. Wilson, of Low Fell, Durham, to Idy Augusta Elisabet Isberg, daughter of the late Rev. Dr. Carl M. Isberg, of 2 Indungartan, Stockholm.

Deaths.

Bayer.—On December 8th, at Shrewsbury, Capt. Henry Michael Bayer, R.A.M.C., of Boundary Street North, Liverpool.

Harris.—On December 11th, at Shanklin, Deputy Surgeon-General William Henry Harris, late I.M.S., of Madras, in the 85th year of his age.

Hilliard.—On December 6th, in his 71st year, Henry Charles Hilliard, M.D.Lond., of White Hill, Bletchingley, Surrey.

Moreton.—On December 5th, at Earlscroft, Tarvin, Cheshire, James Earl Moreton, F.R.C.S., aged 83 years.

Sampson.—On November 25th, 1914, at the residence of his father, Dr. F. C. Sampson, J.P., Moynoe House, Scariff, Co. Clare, William Brady Sampson, M.B., B.Ch., R.U.I., aged 37.

Turner.—On December 9th, at "Holmwood," Bournemouth, suddenly, Henry Gunton Turner, M.R.C.S., aged 68. Deeply regretted.

THE MEDICAL PRESS AND CIRCULAR.

"SALUS POPULI SUPREMA LEX"

VOL. CXLIX. WEDNESDAY, DECEMBER 23, 1914. No. 26.

NOTES AND COMMENTS.

Heroic German Bombardment!

THE German warship raid last week on Hartlepool, Scarborough and Whitby has brought home to us the realities of war. The attack on these towns was made without warning, and has resulted in a loss so far of 122 killed and 549 injured. It constitutes another of the gross violations of the laws of civilised warfare formulated by the Hague Convention. Of the 122 killed only six were combatants, a fact that in itself constitutes an enduring disgrace to the methods adopted by the Germans in the present war. The injuries inflicted in this bombardment were due either to shells or indirectly to *débris* from falling houses and explosions. Many persons were killed in their houses, some of them sitting at breakfast. It sounds like the account of some terrible attack of bloodthirsty savages when we hear of a young woman walking along the esplanade of an English seaside resort being suddenly struck with a shell, and dying of hæmorrhage before she could be assisted to the house of a medical man. With scathing irony the *Daily Sketch* has pictured the Kaiser in the centre of a number of the babies and children killed by his warships, and has appended the name and age of each victim. A document of that kind would more than vindicate the action of the Allies in opposing so blind and brutal an aggressive force amongst the nations of Europe. Even in the face of so gross an outrage, it is difficult to imagine the British troops treating German non-combatants in a similar fashion. At the same time, it will not soften the rigours of settlement that will be enforced upon Germany in the day of reckoning.

Bethlem Royal Hospital.

THE recent deaths from amylene hydrate at Bethlem Royal Hospital have naturally drawn attention to the constitution and management of that body. At one of the two inquests held upon the six persons who died as the result of misadventure the jury commented strongly on the fact that there was no qualified dispenser attached to the Institution, so that the dispensing fell on members of the medical staff. Reference shows that in 1911 there were 473 patients, some of whom paid two guineas a week. The receipts for the same year amounted to £31,000, so that the lack of a dispenser is, presumably, not due to motives of enforced economy. The Bethlem Royal Hospital was founded in 1246, and was granted a charter by Henry VIII. This ancient charity is administered by the Corporation of London, and it would be of interest to know on what authority charges are made to patients, and as to the precise number of paying patients admitted yearly. In Fry's "Guide to the London Charities" the avowed objects of the Institution are set forth as follows:—"For the care of persons of unsound mind likely to be cured within one year, and who are not fit objects for a county lunatic asylum. Preference given to patients of the educated classes." The charity is clearly the birthright of the citizens of London, and it would be interesting to learn on what grounds and to what extent the terms of the original foundation and the original charter have been modified. Perhaps the London County Council might take steps to investigate the relation of this ancient and famous hospital to the insane of London. The man in the street will naturally ask why a hospital founded for the poor should be used by the well-to-do. The Charity Commissioners might, perhaps, be induced to inquire into the administrative methods of this hospital, which in any case would do well to publish a full statement in order to restore public confidence in its efficiency. Possibly, however, the original foundation and the charter provide for the admission of well-to-do and paying patients, in which case the Corporation will doubtless give the necessary explanation.

The General Medical Council and the Shortage of Students.

OUR correspondence columns contain an important letter from the General Medical Council calling attention to the serious shortage of medical students. From official returns obtained from the various medical schools of the United Kingdom, it appears that the aggregate number of medical students now in active pursuance of their studies is about 1,000 less than in the year 1913. This means, of course, that within the next few years there will be a considerable reduction in the number of qualified medical men available for the medical service of the community. The diminution now officially announced is equivalent to a reduction of 25 per cent. of the average number of qualified medical practitioners annually added to the *Register*. This deduction is arrived at from the added statement that the average number removed every year from the *Register* by death or otherwise has for some years past been about 800. Although the war is responsible for the greater part of the diminution of students at the schools, it should be borne in mind that the number of students has been falling for a long time past, and it is just possible that this wave of reduction may register a reaction against a previously overcrowded profession, as well as some feeling that the general conditions of the medical world are in need of well-regulated reform in order to bring them into line with those of other learned professions. As to the immediate shortage, the Council points out that unless many senior students return to their studies within the next few months there will be a shortage of 200 to 300 of newly qualified medical men annually.

The War and Medical Research.

There is nothing like war for checking the progress of all kinds of scientific investigation, both of a private and also of an official character. We read of Germans being "ruthlessly" transplanted from the peaceful atmosphere of the pathological laboratory to the din and strife of the battlefield. Even in our own country the cause of research must suffer to some extent, though, fortunately, not in the same proportion as that of Germany. Indeed, judging by the formidable list of grants made the other day for purposes of medical research under the National Insurance Research Scheme one might suppose that such a thing as war were undreamt of. It is a matter for congratulation that the Government has so far fulfilled its promise to provide funds and encouragement for a large body of workers who are ready and willing to investigate a number of problems affecting the medical welfare of the community. Let us hope that the various grantees will be able to pursue their laboratory quests without sharing in the distraction and uncertainty that pervades the general atmosphere of the present time. Turning to research of a more private character, it may be noted that at a meeting of the Trustees of the Beit Memorial Fellowships for Medical Research held last week, only three Fellows were elected—Dr. E. G. Fearnsides, Miss F. M. G. Micklethwait, and Dr. E. P. Poulton—who will prosecute researches into (1) syphilis of the nervous system; the intimate anatomical relationships of the meninges and parenchyma of the nervous system in man and animals; the clinical manifestations of diseases of the pituitary body; (2) chemiotherapeutics, especially with regard to organo-metallic compounds of the nature of salvarsan, etc.; (3) respiration and metabolism in disease, respectively. Many obscure and difficult problems about to be tackled by all these investigators have long been awaiting solution, and it is to be hoped that, in spite of the war, fresh light may be thrown upon some of the dark places of clinical medicine as the result of their labours.

LEADING ARTICLES.

GERMAN COMMERCIAL WARFARE AND SCIENCE.

A marked characteristic of most of our great British scientists is a happy blend of practical good sense with the more technical part of their work. That quality was conspicuously shown in a recent address given by Sir William Ramsay, F.R.S., to the Institute of Industry and Commerce. He pointed out that Germany had looked upon commerce as a war, to be pursued by brutal and unscrupulous methods rather than as an arrangement for mutual benefit. The war in which we are now engaged was, in fact, a war for the liberation of nations from unscrupulous and illegitimate commercial methods on the part of Germany—as well as for deliverance from the brutality of militarism and "Kultur." "It is necessary to go further," said Sir William. "Just as the German State has shown itself to be no respecter of treaties, just as the leaders of the Germany Army have revealed themselves as breakers of every humane law; treacherous and deceitful, so long as they can gain their ends: so it is foolish not to be warned that the German nation, as a whole, is unworthy of trust; that commercial agreements are regarded by members of that nation as binding only so long as some advantage is to be gained by keeping to them, and that dishonesty is excusable if only it appears to lead to German prosperity." This vigorous exposure comes with especial force from Sir William Ramsay, who, as Chairman of the Educational and Research Committee of the Institute, has already formed a Central Outside Committee, with a view of forming a curriculum for industrial scientific education. For this purpose a number of leading scientific and educational authorities have been called together. The main immediate points in view of the Institute are the standardisation of education, and the drafting of a curriculum of the above-mentioned kind. The movement is significant. It shows that the British mind is beginning to appreciate more accurately the value of science and of scientific training as an educational method. Germany has long since grasped the lesson that commerial progress is largely commensurate with national scientific standards. She has accordingly, as a State, spent large sums in the endowment of scientific research. Nor have the domineering selfishness of the German nation and the unscrupulous brutality of their commercial methods prevented them from reaping an extensive harvest in real science. In other words, she knows how to forge and to use sound weapons, as well as those that are unsound and treacherous. The tendency of the patient German mind is to acquire an ever-increasing mass of details, with the inevitable result of a tendency to invest isolated observations with the dignity of established generalisations. In the present war many of their preconceived notions as to military strategy have crumbled to dust when put to the test of actual practice. In a word, there appears to be some vital defect in the application of the vast range and brilliance of Germany's organised scientific activities. Not long ago the nature of this defect was hinted at in a leading article in our columns, dealing with the attempted Germanisation of the London University. The keynote of our comments lay in the protest advanced against the too rigid adoption of German educational methods to the exclusion of the practical handling that has always been characteristic of our British practice, especially as regards the practical application and the practical direction of scientific work. A correspondent, well known in the London medical world, furnished us recently with a good illustration of German enterprise in the world-competition. It appears that a Japanese student applied to him with a view of coming under his tuition in certain advanced research work. A moderate fee was named and the matter remained in abeyance for some time. Then a letter came from the student saying he had made up his mind to wait until the war was over, and then to go to Germany, where he could get all he wanted, free, gratis and for nothing. The letter, with its quaint phrasing, may be interesting to our readers if reproduced *verbatim*:—"Sir," it ran, "since I have seen you, I considered over again, and I came to the conclusion, that I can not pay so much money for my research, because I was intended to research in Germany, where we had nothing to pay for our studying. It would be better, therefor, to go back for Japan to spare my money for researching in Germany after the war or in Japan. And it is not because I want not, but because I am compelled. To inform this I am very sorry and I repeat my thanks.—Yours . . . affectionate . . . Dr. X. Y. Z." Germany is a nation that does nothing without an object, and a useful lesson might be learnt by considering carefully the policy that provides free scientific facilities not only for her own students, but for those of other nations.

CURRENT TOPICS.

The Health of the Navy for 1913.

The statistical report of the health of the Navy for 1913 has just been issued by the Admiralty. Many of the remarks, and also the whole of the appendix, which formerly contained original articles by the medical officers, have been omitted owing to the intended publication of a quarterly Naval Medical Journal, and also on account of the general mobilisation of the Navy on August 1st, 1914, at which date they were in course of compilation. It is satisfactory to note that the returns for the Total Force for the year 1913 show a continuous improvement in the general health of the Fleet as compared with the preceding five years. The case ratio and the average loss of service per man are lower than the corresponding ratios for the previous five years. The total number of cases of disease and injury entered in the sick list was 77,438, the average number of men sick daily being 3,018.17, both being a decrease upon the average for the previous quinquennial period. The Mediterranean station shows the lowest sick rate, and the East Indies the highest. In connection with the latter it is interesting to note that eight cases of beri-beri were reported on board the *Perseus*, seven of which were in Europeans. The Medical Officer, Surgeon J. H. McDowall, states with regard to this outbreak that a few rats were found on the vessel. These were cleared out, the woodwork scrubbed, and a mongoose was purchased, but this animal became affected with paralysis a month after its arrival on board. It is suggested that beri-beri may possibly be a rat-transmitted disease. Tuberculosis and venereal diseases both show a decrease in case ratio and invaliding as compared with the average for the previous five years, the latter being highest in the China Station, and lowest among the Home Fleet. Local injuries are still responsible for the greater number of casualties, and diseases of the digestive system come next, of which tonsillitis forms the largest proportion. Typhoid fever claimed 59 victims among the Home Fleet, with 17 deaths, whilst the East Indies Station only contributed 7. We miss the interesting original papers at the end of the report, but no doubt these will appear in a subsequent issue.

The Treatment of Hyperthyroidism.

Goitre has always been an interesting condition, first to the patient who possesses it and also to the physician or surgeon who tries to cure it. Nobody likes to suffer from an ailment with so obvious an incidence, and the ways of treatment have been many and varied—so many and so varied that we may safely say that none has been entirely satisfactory. In the older days of medicine the cures often showed a touch of unsavoury mystery and odoriferous romance. A dead snake, or in milder cases, a sloughed snake's skin, wrapped round the neck was often used. The touch of a rope with which a man had been hanged, or of the hands of an executed criminal sometimes did the trick. Burnt sponge and powdered mummy have often worked wonders. In the last twenty years we have more or less concentrated our attention on the thyroid gland. A surgeon used fresh thyroid gland and reported good results. When carefully analysing his cases afterwards he found that, owing to an error on the part of a butcher, he had been all the time administering thymus. He got his results all the same. Then parathyroid, epinephrin, and other glandular extracts, had some success and serums made from thyroidectomised animals. Recently it has been found that various nose and throat operations brought great relief of symptoms to many goitrous persons. In most of the cases hypertrophied turbinals were found and cauterised with entire success, but the removal of nasal polypi, and even of tonsils and adenoids, had a like favourable action. The truth seems to be that in many of these cases suggestion is the important factor. As long as the patient is convinced that he is going to be cured, improvement is likely to take place after the induction of the trusted treatment. The moral of all this is that we must investigate with increased care all procedures for the treatment of this condition. The accomplishment of sensational cures while a remedy is fashionable is not enough. We must employ the test of time as well, and this applies to surgical as well as to medical methods. And we must not forget that in many cases rest alone is followed by recovery.

Doctors and Scoffers.

Nearly everyone laughs at the doctor some time or other. The exacerbations of cachinnation usually recrudesce when the mocker is in the enjoyment of perfect health and subside like a ripped Zeppelin on the appearance of any of the thousand ills that we are proverbially supposed to inherit. Still, all the best people have done it from Molière to Bernhardi Shaw. And the profession survives. "Though sticks and stones may break my bones, words will never hurt," or we should have perished from the sharp attacks of ridicule long ago. Many of the scoffers are poor folk. The loudest laughers are the first to run to the consulting-room when a bodily twinge wipes the grin from their face, and, though they may subsequently boast that they neither follow the advice nor take the medicine, that does the doctor no harm. He has the laugh for once, provided that his fee has been paid. Montaigne disliked medicine, but loved doctors. "It is not them I blame," says he, "but their art." He would send for them when sick, and let them choose whether his broth was made with leeks or lettuce, or whether his drink was white wine or claret; and, in fact, tyrannise over him in any details that he considered unimportant. He claimed preference for the simple-woman over the apothecary, as he deemed that her concoctions, at any rate, were harmless. Many of the scoffers suffer from a type of mind. They are the real anti-bodies. If there is a society for suppressing something that is good and useful you will find them in the members' list. They object to wine, vaccination, tobacco, vivisection, street noises, and anything and everything that conduces to the gaiety of nations. They love quacks. The impossible appeals to them as the only safe way. They like to think that they are in a minority, for to them to be in a minority is equivalent to being one of the elect. So they fatten the pill-makers and advertising agents. They would agree with Tertullian—if they had ever heard of him—when he said "*Credo quia impossibile.*"

The Subcutaneous Injection of Oxygen.

The resuscitating effects of oxygen gas when inhaled in conditions of respiratory embarrassment and cardiac failure are well known. The inhalation of oxygen in health appears to have no effect upon metabolism, for it merely reduces the rate of the heart and raises the blood-pressure. In the case of athletes and mountaineers the gas abolishes shallow, hurried respiration, and prevents in a large measure the feeling of fatigue. It is two years ago since we published in our columns an interesting paper by Derose on the subcutaneous injection of oxygen, which was to be preferred in some cases to the older method of inhalation. In our present issue appears another article by Dr. Henry O. Howitt, of Guelph, Ontario, who records his results of the subcutaneous use of oxygen in therapeutics. Dr. John McCrae, of Montreal, has described his experiences with the new method in the *American Journal of Medical Sciences.* He conducts the gas from the ordinary high-pressure cylinder, to which is attached the usual wheel and valve, by means of rubber tubing to a needle, which is pushed beneath the skin until an appreciable swelling appears. The distension is said never to cause pain, even though it may be somewhat suddenly produced. In thirty-three cases in which oxygen was so administered a noticeable degree of respiratory comfort was observed, especially in cardiac and renal dyspnœa. The results obtained in pneumonia, contrary to expectation, were disappointing. Dr. McCrae is of the opinion that the subcutaneous method is both easy and economical, and it may be given in many different parts of the body in quick succession, if so desired.

The Dublin Castle Hospital.

It will be remembered that some weeks ago His Majesty offered the use of his Castle of Dublin as a temporary hospital for wounded soldiers. It was inspected by a committee of medical and engineering experts, including the President of the Royal College of Physicians and Surgeons, Surgeon-General Anderson, head of the Army Medical Service in Ireland; Sir Charles Cameron, Medical Officer of Health of Dublin; and Sir George Stevenson, of the Board of Works. This committee reported that the premises were eminently suited for the purposes of a hospital, and that comparatively little structural alteration would be required. A public meeting was held, a subscription list was opened, and arrangements hurried forward. His Majesty showed his further interest in the scheme by sending a subscription of £100, and Queen Alexandra graciously sent a like amount. Money came in fast, and it was hoped that four hundred and fifty beds would be ready for occupation in a short time. The scheme, however, met with some opposition from more or less responsible letter-writers in the Press—most of them prominently associated with a branch of the Red Cross Society other than that responsible for the Castle scheme. Various titled persons cast doubts on the sanitary state of the Castle, and some of them even knew people who had suffered from sore throat while resident there. The opposition attracted little attention until one of the most active in it announced last week that the War Office had decided to withhold its approval. The statement appears to have been untrue, but the War Office is considering the matter with what seems an unnecessary amount of deliberation. Last Saturday three gentlemen were sent by the War Office to visit the Castle and report as to its suitability. We understand that they made a careful and minute examination of the premises. Pending the appearance of their report and the decision of the War Office we refrain from any comment at present.

Egg Poisoning and Asthma in Children.

The occurrence of certain toxic symptoms, such as urticaria and asthma, after eating eggs, has frequently been observed in childhood. The effect of the introduction into the blood of a foreign protein may "sensitise" the tissues in such a manner that a subsequent dose may cause symptoms of anaphylactic shock or intolerance unless immunity have been previously established. Dr. Fritz B. Talbot, of the Harvard Medical School (*a*), has studied eleven cases of egg anaphylaxis, and he describes six in which the evidence appears to be pretty clear that asthma in children is a manifestation of anaphylaxis and that the urticaria which so often comes on after certain articles of diet may conceivably affect the mucous membrane of the bronchial tubes, thereby producing symptoms of asthma. In a certain number of children asthma is definitely due to egg poisoning, and there is frequently a family history of idiosyncrasy to eggs, of hay fever, or of asthma. The experiments of Oscar Schloss, made two years ago, are quoted in support of the view that it is possible to immunise children who show signs of intolerance of eggs by giving them minute doses of egg-white in capsules in gradually increasing doses three times a day. Dr. Talbot has repeated these clinical tests as well as the skin-inoculation test with egg-white—a sort of von Pirquet reaction in which ovomucoid is employed in place of tuberculin. A local urticarial reaction at the point of inoculation indicates that the individual is sensitive to egg-albumen. The report is only a preliminary one, and in a further communication it is hoped that the author may be able to determine what other proteins are capable of producing asthma.

Arrows in Warfare.

It is a far cry from the pre-historic flint arrowhead to the weapon of sport employed in modern archery. Not until the Saxons began to subdue our ancestors in this country with their bow and shaft, "whiche weapon beynge straunge . . . was wonderful terrible unto them," was the art of shooting with the bow deemed worthy of cultivating by the British. The use of this weapon was, of course, extensively practised by many ancient peoples, including the Parthians, the Egyptians, and the Cretans, not to mention the Romans and the Greeks. With the introduction of fire-arms in the seventeenth century, the bow and the shaft gradually fell into disuse as implements of war.

(*a*) *Boston Medical and Surgical Journal,* Nov. 5th, 1914.

It is somewhat strange, therefore, to learn from a German army surgeon that several cases have occurred during the present war of punctured wounds from arrows shot from an aeroplane, the nationality of which is not stated. The modernised shaft appears to consist of four parallel bars or rods of pressed steel, 10 by 15 cm. long and 8 mm. thick, welded together, and forming a star-shaped figure on cross-section. The up-to-date *sagittarius* has succeeded in projecting his darts so as to effect an easy penetration into the bodies of his victims, for it is reported that in some cases they had to be cut out of the wounds. The use of poisoned arrows, indulged in by certain South American tribes, is contrary to the conventions of modern warfare, but under favourable conditions, and in the hands of a skilled marksman, there would seem to be nothing against the legitimate use of this missile in modern warfare, in spite of its obvious drawbacks.

Bacelli's Treatment of Tetanus.

The development of lockjaw as a result of wound infection is one of the complications which military surgeons most dread to see. Whatever be the remedy employed, anti-tetanic serum or injections of magnesium sulphate, the mortality from tetanus is very great. It is interesting, therefore, to note that the method of treating the disease with carbolic acid, advocated by Bacelli, employed concurrently with large doses of chloral hydrate, succeeded in curing six out of twenty-two cases occurring in wounded soldiers in a temporary hospital at Cherbourg, the details of which have been reported by Dr. Paul Sainton to the French Academy of Medicine (*a*). Twice a day each patient received a hypodermic injection of from 40 to 50 c.c. of a two per cent. carbolic acid solution, the dose varying between 1 gr. 60 and 2 grammes a day. The injections were made in the neighbourhood of the wound or else beneath the skin of the abdomen. In two cases, who received the injections for nearly a month, the amounts of carbolic acid introduced were 48 and 88 grammes respectively. No pain was experienced as a result of the injections and no toxic symptoms were observed. Simultaneously with this treatment the patients were removed to a quiet and semi-darkened room, and each received twice a day an enema containing 6 to 8 grammes of chloral, the yolk of one or two eggs and 250 grammes of milk. The fact was noted that the carbolic acid appeared to be retained in the system for a long period, for it was not found in the urine immediately after the injection. In one case, it was still discoverable in the urine thirteen days after the last injection. It has been shown *in vitro* that carbolic acid has no effect upon tetanus toxin, so that it would appear that it acts in the body more as a direct germicide. Treatment upon the appearance of the earliest premonitory symptoms of tetanus is urged by M. Sainton, as thereby lies the only chance of success.

The Luminosity of Annual Medical Reports.

The average annual report of the Medical Officer of Health of a district consists of tables of mortality from the various infectious diseases, cancer, tuberculosis, etc., together with sundry tabulated lists of sanitary reforms effected during the year, accounts of school medical inspection and of the sampling of food and drugs, together with other matters affecting the physical welfare of the community set forth in a more or less cut-and-dried manner. As a mere record of sanitary progress and of work done columns of statistics are, no doubt, sufficient. It requires something more than these, however, to make an annual report interesting as well as instructive to the lay reader who may be supposed to take an intelligent interest in the public health of his town or village. As an example of a report replete with explanatory information imparted in a luminous and popular style may be mentioned that by Dr. Alfred E. Harris, the well-known Medical Officer of Health for the Metropolitan Borough of Islington. Within a substantially bound and attractive volume of some 350 pages may be found instructive articles on such subjects as the symptoms and causes of anterior poliomyelitis, a succinct account of the origin and spread of venereal diseases, the progress of cancer research, and an historical survey of the adulteration of food. An excellent photograph of a map of the whole borough, marked with black and white-headed pins is inserted to illustrate the case-incidence of pulmonary and other forms of tuberculosis, respectively. It may be noted that an attack-rate of 5.07 per 1,000 of tuberculosis was notified during 1913, as compared with 6.56 in London. The total death-rate in Islingon was 15.15 per 1,000. Dr. Harris may be congratulated upon the sanitary record of the borough, and also upon the production of a most illuminating report.

PERSONAL.

T.M. the King and Queen paid a visit the other day to the wounded officers and men who have returned from the Front at the 1st London Territorial General Hospital, Cormont Road, Camberwell.

Dr. Francis John Allan, M.D., D.P.H., M.O.H., of Westminster, was installed the other day W.M. of the Thistle Mark Lodge.

Dr. Sydney Murray, M.B., B.S.Durh., has been appointed Assistant School Medical Officer to the Sunderland Town Council.

Dr. A. Dove Cormac, M.B., M.S.Madras, has been appointed Medical Superintendent of the Cheshire County Asylum at Parkside, Macclesfield.

Dr. William Lees, of Chester, has received the honour of being elected by the Council as an Honorary Life Member of the British Red Cross Society.

Dr. Robert W. Macpherson, M.D., B.Sc., D.P.H., Assistant Medical Officer of Health for Chester, has been appointed Assistant School Medical Officer for Cheshire.

Dr. Frederick W. Price, M.D.Edin., M.R.C.P. Lond., has been appointed Honorary Assistant Physician to the National Hospital for Diseases of the Heart.

Miss Eleanour Davies-Colley, M.D., B.S.Lond., F.R.C.S.Eng., has been appointed Surgical Registrar to the Royal Free Hospital (London School of Medicine for Women).

Dr. Douglas Martin, M.B., Ch.B.Edin., D.T.M. and H., of East Calder, has been appointed School Medical Officer and Assistant Medical Officer of Health to the Borough of South Shields.

We regret to learn that Dr. E. F. Bashford has been obliged to resign his post of General Superintendent of the Imperial Cancer Research Fund, which he has held for the last eight years, owing to continued ill-health.

(*a*) *Bull. de l'Académ. de Méd.*, No. 38, 1914.

A LECTURE

ON

THE MARTYRDOM OF MEDICINE.

By SIR WILLIAM J. COLLINS, K.C.V.O., M.S., M.D., B.Sc.Lond., F.R.C.S.Eng.

I have ventured to select as the topic for this lecture, "The Martyrdom of Medicine." I hope that that alliterative title is not too ambitious for the subject of a brief address. No one can dispute the fascination of such a subject, even though one can do little more to-night than touch the fringe of it. Indeed, the thrilling human interest it excites, the intellectual speculations it opens up, and the lessons it should bring home to all thinking men, demand the pencil of a St. Jerome or of some indefatigable John Foxe to do anything like justice to so exalted a theme. I shall only attempt to put together some fragmentary contributions towards some worthier handling of this subject.

The term, "Martyr," has gathered around it associations which formed no part of its original etymological signification. The prime content of the name was that of bearing witness to what was believed to be true. The antipathy on the part of many to receive the evidence thus vouchsafed was not slow to lead to opposition, rejection, persecution, and even destruction of the bearer of such unwelcome testimony. By a process of transference and desynonymisation, the term "martyr" was differentiated from its original equivalent of witness and came to connote suffering or death for any cause or faith. Moreover, the voluntary nature of the sacrifice ceased to be essential, and those who suffered loss or death in pursuit of any object to which they were devoted, even though such deprivation came about fortuitously, often received the designation of martyr and were accorded the crown of martyrdom. The involuntary victims of any cause, pursuit, faith or science were thus included within the ranks and went to swell the records of martyrology.

A glance at the history of medicine will readily call to mind examples of all these various types; not only of medical men or women, but of others who were pioneers in sanitary reforms or zealots in pursuit of the kindred sciences. Some martyrs of medicine have sacrificed themselves voluntarily, others involuntarily in the field of research, others again have suffered persecution or death at the hands of secular or spiritual authority, and yet others, alas! have been ostracised, goaded into insanity, or subjected to neglect, or ridicule scarcely less grievous than death itself, at the hands of those of their own calling and profession.

Does it not seem like an extravagant paradox to link together medicine and martyrdom? Medicine as a science the ally of all liberal learning, devoted to search for truth alone, and illumined by the light of reason, ought she not, at any rate within her own borders, to be able to claim that her history contains no martyrology? Medicine as an art, inspired by pity, given to the relief and prevention, and not to the infliction, of pain, to save and not to kill, can it be true that persecution, ostracism, heresy-hunting, have been committed in her name?

We might indeed anticipate that, inasmuch as medicine was one of the earliest of the applied sciences to claim the earnest study of thinking men, in the early days of ignorance and barbarism, the observations of fact and the ratiocinations of the mind might not infrequently conflict with the dogmas of authority and the crude conceptions of self-satisfied pundits.

Unfortunately, it is only too true that the history of our honourable profession is rich in instances of those who have been martyrised by Church or State or both combined, as well as those who, by reason of what was deemed heretical at the time, have been denounced, traduced, hounded and crushed by men sometimes of their own profession, imbued with that spirit of intolerance which is much the same in science and medicine as it is in theology.

Call me o'er earth's chosen heroes, they were men
 that stood alone,
While the men they agonised for, hurled the contumelious stone.
Stood alone and down the ages saw the golden beam
 incline,
To the side of perfect justice mastered by their faith
 divine.

I will pursue no chronological order, but will plunge at once *in medias res*, and ask your attention to the life and work of Ignaz Philipp Semmelweis.

The story of Semmelweis is a melancholy one for any one to read, and especially for a medical man to tell. Sir Wm. Sinclair's work, published in 1909, has provided English readers with an appreciative biography and a just estimate of his work. Ninety-four years ago, in the fair capital of Hungary, where past and present, east and west, feudalism and democracy meet by the swift waters of the Danube, our hero first saw the light of day. He studied medicine in Vienna at the old Allgemeinnen Krankenhaus, he became master in midwifery in 1844, and devoted himself to the Maternity Clinic. Alike in the dead house, in the library, and at the bedside, he investigated the problem of that fatal fever which levied so heavy a toll on the lying-in women of the hospital. Cruveilhier had suggested an analogy between the puerpera and a wounded person; Boër, who had studied in England, and Oliver Wendell Holmes in America, had hinted at contagion as a factor in the case, but the authoritative doctrine on the Continent of Europe, at that time, favoured "the epidemic constitution of the atmosphere," of which Sydenham was so enamoured, as an all-sufficient explanation. To doubt its adequacy was heresy, to practise cleanliness superfluous, and, indeed, revolutionary. The death of Professor Kolletschaka from a *post-mortem* puncture suggested nothing to minds indurated by authority and fortified against original inquiry. But Semmelweis combined this bit of evidence with a remarkable piece of differential experience in the first and second clinics respectively. Why in 1846 were there 460 deaths from puerperal fever in the first clinic and 105 only in the second? Had the great Dr. Klein's practice, in the former, of demonstrations to his students on the cadaver, followed by undisinfected ministrations in the wards, nothing to do with the statistical diversity which had riveted Semmelweis's attention? He used and advocated chlorine water for cleansing the hands of the accoucheur prior to his attendance in the maternity wards. This practice was followed in 1847 by a considerable reduction in puerperal mortality. He promulgated a theory based on these recorded experiences. He assailed filthy practice in high places, and the fury of the Scribes and Pharisees was let loose. Authority in the person of the great Dr. Klein was offended. He continued extensively to demonstrate on the cadaver; he was the apostle of the unwashed hands. He scoffed at the "fad" of poor Semmelweis. Though Klein's mortality might be 7.8 per cent. against the more cleanly Boër's 1.3, if figures disputed authority, why, so much the worse for the figures! The general herd of orthodoxy sided with Klein, yet a few of the broader and more philosophically-minded men were impressed with Semmelweis's doctrine. Hebra (who reformed Dermatology) published the results in the *Zeitschrift:* Routh introduced them into England. The great Skoda proclaimed them as comprising " one of the most important discoveries in the domain of medicine," and as Sir William Sinclair observes, " Much of what Skoda said might stand in a modern text-book; all that is wanting is the bacteriology, then unknown, and about the value of bacteriological details (beyond what was known from the first to Lister and his early disciples), there is room for much difference of opinion."

Haller, too, then Senior Physician at Vienna, testified to " the importance of this experience for lying-in hospitals, and *for hospitals generally speaking especially for the surgical wards,*" regarding it as " immeasurable." He urged " all men of Science " and the high authorities of the State to give due recognition to the doctrines of his junior colleague. Meanwhile, Semmelweis experienced the fate of the prophet in his own country. A request for the extension of his office for another couple of years, as was customary, was promptly refused, thanks to Klein's influence. The University authorities turned against him. He abruptly left Vienna, returning despised and rejected to his native Buda. In 1850 he attached himself to St. Rochus Hospital, and became Professor of Midwifery there. Five years later, in 1857, he married the young and charming Marie Weidenhofer, who proved a loyal helpmate during the brief remaining years of their joint lives. In 1860 he published in his " Die Ætiologie " an account of his discovery—*that puerperal fever is produced by the resorption of decomposed animal organic matter and can be prevented by due regard to cleanliness.* It was mooted abroad. Simpson at first misunderstood, but later accepted, his thesis so much in accord with his own predilections. Virchow attacked him in a way unworthy of one who, in later years, became the Grand Old Man of Liberalism in Germany. As his biographer states, " by the employment of antiseptics he was on the path to the introduction into operative gynæcology of those measures against infection with which we are so familiar and which we associate with the name of Lister " . . . " before the work of Pasteur was known and before Lister introduced his methods of preventing wound-fever, and long before anyone elsewhere thought of routine antiseptics in midwifery, the systematic use of antiseptics in midwifery, gynæcology, and surgery had been regularly practised at Buda-Pesth," and Sinclair concludes, " we may without violence claim for Semmelweis that it was he who introduced antiseptics as a prophylactic measure, both in obstetrics and gynæcology." In 1863 he performed the first ovariotomy operation in Buda-Pesth. He, despite the most malevolent persecution by the bigoted pontiffs of the profession, was rising into eminence. But the iron of persecution had entered deeply into his soul. By nature tender and trustful, the accumulated enmity and venom which he had encountered had unnerved him, and in 1865 his mind showed the first signs of that unhinging which brought him to an untimely end.

Skoda, who had himself been pilloried as a materialist, stood bravely by his idealistic friend. He urged him to experiment on animals and thus demonstrate to the sceptical the truth of his doctrine. He tried this line of research, but without enthusiasm, and later when urged to prosecute it by the Society for the Advancement of Science (who voted him money for the purpose), he refused to resume experiments on the ground that clinical evidence was sufficient to establish the truth of his doctrine, and Sinclair maintains, " he was right." There are, however, those who assert that Semmelweis failed where Lister and Pasteur succeeded because of the bacterial demonstrations upon which the later observers relied. The deliberate conclusion, however, of his sympathetic biographer is " that the great revolution of modern times in obstetrics as well as in surgery is the result of the idea that, complete and clear, first arose in the mind of Semmelweis and was embodied in the practice of which he was the pioneer."

As for Semmelweis in the flesh he was of striking and dignified presence, rather bald and inclined to *embonpoint*, benevolent in expression, well set up and rather florid. His portraits recall the bust of Shakespeare at Stratford-on-Avon. We are told, " Every word and action expressed unbounded kindness of heart. Towards the poor and suffering he was always kind and helpful. He was strict and exacting towards himself and others in professional matters; and he was inexorable in his demands for exactitude in carrying out his prescriptions with regard to disinfection. He was readily excited and hasty in temper, but easily soothed and calmed down." " He was absolutely devoid of the qualities which express themselves in self-seeking and personal ambition," and was possessed with a warm desire to benefit humanity by his labours.

Nevertheless all the vituperative vocabulary which forms the regular stock-in-trade of shallow orthodoxy was hurled against this man. He was a " crank," a " faddist," a " visionary," he was devoid of all becoming respect for authority,—the customary charge against a disturber of the deep slumber of decided opinion. His dialectic methods, which in his " Open Letters " betrayed powers of repartee and irony for which some of his assailants were no match, were accounted ill-bred and violent, and quite unsuited to the smug complacency of conventional medical literature.

Carl Brawn denounced the doctrine of Semmelweis as " humbug," while he wisely and cautiously proceeded to adopt his practice.

Virchow found sufficient explanation of child-bed fever in certain states of the weather combined with the presence of one or other of the exanthemata. Denham, the Master of the Rotunda, demurred to any teaching which placed the " Sin and Disgrace " of conveying puerperal fever on the uncleansed hand of the accoucheur. The teaching of Robert Barnes in the 60's was adverse to the Semmelweis thesis as it was then being propagated in this country by Simpson and my dear old master Matthews Duncan. In the debate at the Obstetrical Society of London so late as in 1875 Spencer Wells and others were obsessed with the notion that puerperal fever was a modified form of one or other of the acute exanthemata affecting a lying-in woman. The rejected heresy of Semmelweis is the accepted gospel of to-day. Yet have we not had recent warning of a revival of the gospel of dirt, as the *British Medical Journal* of March 25th, 1911, happily puts it, in the teaching of a well-known pathologist that cleanliness, fresh air, and physical exercise are dreadful superstitions? The journal innocently suggested that Benedict Joseph Labre who devoted his body to be a pasture and breeding-ground for lice might be appropriately set up as the patron-saint of the devotees of this renewed gospel of filth.

It seems now incredible that the simple teaching of Semmelweis should have fallen upon deaf ears, and that instead of seeing the fruit of his labours ripening during his lifetime he was bullied and brow-beaten until his mind gave way and early death, accelerated indeed by that very blood poisoning upon which he waged war, cut short his beneficent career.

I will not here pause to moralise on this strange eventful tragedy of Ignaz Semmelweis, but will ask you to turn with me to an earlier page of history and to direct your attention to the life, work and death of Michael Servetus. There is abundant material for his story to be found in the British Museum. In 1877, Dr. R. Willis, of Mortlake, put together a full account of him in English, derived from original sources; and from this quarry more recent biographers like Osler have freely helped themselves. I have often heard from my late friend, Sir B. W. Richardson, the praise of the erudite Dr. Willis, of Mortlake, who died in 1878, and with whom Richardson was for a while in partnership. He was a well read Scot, a friend of George Combe, the author of "The Constitution of Man"—widely travelled, blessed with a capacious memory, a good classic, a lover of books, in philosophy Hamiltonian, in physic a sceptic, an annotator of Spinoza, while as for Servetus, "he literally worshipped him." Michael Servetus was born in 1511 with the best blood of France and Spain coursing in his veins. Study in a monastic school failed to attract him to the Church; some impressionable years spent at the University of Saragossa and devoted to classic philosophy, astronomy, and geography gave him a wide outlook upon life. A temporary and hereditary leaning to law took him to Toulouse, then far-famed for jurisprudence, but nevertheless severely and orthodoxly Catholic. Here he studied the Old and New Testaments not only with the new-born zeal and affection of a Lollard, but with the critical care of a scholar, as he would set himself to study any other book. He was, in fact, the pioneer of the Higher Criticism, a Modernist born out of due time. He became imbued with the work of Sabunde on Rational Theology, which his contemporary, that other Michael Lord of Montaigne, had done into French. The thunderings of Luther had also reverberated in his ears, and the more cautious erudition of Erasmus had come within his omnivorous assimilation. Appointed to the household of Quintana, the Confessor of Charles V., his introduction to a Papal adoration at Bologna nauseated and disgusted him. Charged as he was with scholarship of all sorts and with all the intolerance and infallibility of youth, the *cacoëthes scribendi* came strong upon him, and in 1531 he published his work "De Trinitatis Erroribus." He fell out alike wth Catholic and Protestant. "Both," he said, "seem to me to have something of truth and something of error in their views, and whilst each sees the other's shortcomings neither sees his own." In the thoroughness of his reforming zeal he resembled the Anabaptists; his mind was moving on the lines which in Holland characterised the work of Menno Simons and he anticipated the teaching of Faustus Socinus. In his pantheistic conceptions he was a forerunner of Spinoza; of the Deity he would say "the realms of being to no other bow, not only all are Thine but all are Thou!" The fall and original sin had no part in his theology. His publications by their fearlessness and self-confidence, and also perhaps by occasional light handling of things seriously held in reverence by others, soon made Basle (where he had for a while resided) too hot to hold him. He entered the University of Paris in 1532 under the assumed name of Villeneuve, derived from his birthplace; not an uncommon practice then as one remembers the similar case of Giordano Bruno, who called himself the Nolan after his eponymous native town. There was, however, more in this change than met the eye, and a desire to dissociate himself from the authorship of the work on the Trinity was not absent from his mind. He took his M.A. and, it is alleged, his M.D. in Paris. Here he met his fate in John Calvin, the pillar of orthodox Protestantism, a man of his own age, of inflexible purpose, narrow faith, severe indeed towards himself but not less severe towards others, renouncing Rome yet denouncing those who rejected more of her teaching than he was disposed to do himself. In 1535 we find Michael, still as Villeneuve, at Lyons, editing scientific and geographical works for the firm of Trechsel. In one of his books he betrays a scepticism not only in religion but in medicine; speaking of "touching for the evil," he remarks that in France he saw the King touch many, but he slyly adds, "I did not see any cured." In England "touching" went on so late as the time of Samuel Johnson, and one physician wrote a book to show that more were cured in a day by the royal touch than by the whole of the faculty in a year—a conclusion which it would be hazardous to dispute! All learned Europe was in these years of the sixteenth century rushing into print, and through his typography Servetus was introduced to Dr. Symphorien Champier, a Lyons doctor and an author of liberal views. He not only urged our hero to practise medicine, but he also unfortunately introduced him to astrology. In 1536 Michael was back in Paris working at anatomy under Vesalius and Sylvius. How often do we find that credulity is traceable on the obverse side of the sceptic, and while Servetus, as we shall see, turned to good purpose his anatomical dissections, he nevertheless got into trouble with the faculty over his astrological theorisings, inspired by Dr. Champier. His Ptolemaic studies, as with many of his contemporaries, had led those who conversed with the heavenly bodies and listened to the music of the Spheres to argue for some harmony between these celestial creatures and the "still sad music of humanity." In our own day have we not the widely held belief in the influence of the moon on the weather, and even our good philistine John Hunter, if I mistake not, argued for the influence of that satellite upon the mind of the epileptic. Servetus or Dr. Villonovanus, as he was now styled, was cited before the High Court of Parliament by the Faculty of Physic and Rector of the University in March, 1558, to answer for heresy in teaching astrology. A not unimportant part of his offence appeared, however, to be that the students flocked to hear him and paid him fees, while forsaking the lecture-room of orthodox dulness as laboriously expounded by his rival Pico de Mirandola. Judgment went against him and he left Paris first for Charlieu and then for Vienne, where his Parisian friend Paumier was now Archbishop. With Paumier as his patron, Dr. Villeneuve entered on the practice of physic in Vienne and spent the twelve happiest years of his troubled life under archiepiscopal patronage. He still devoted himself to theology, and produced a Latin Bible with commentaries whose modernism scared the orthodox. It received the honour of being placed upon the Index of Rome, while it was also denounced as flat heresy at Geneva. A vigorous correspondence arose between Calvin and Servetus; bitter and acrimonious on the part of the former, arrogant and contemptuous on the part of the latter. Calvin was at last stung into the threat that if Servetus came to Geneva he would not suffer him to go away alive. In 1532 with the initials M.S.V. at the end as the only mark of identification, Servetus printed a work entitled "*Christianismi Restitutio*," advocating a return from Christianity of the Church or the Creeds to the simpler Christianity of its divine author. It is in this work, inset as it were in the midst of a theological argument, that there appears a passage which entitles us to claim Servetus as the forerunner of Harvey and Cœsalpini in accurately describing the circulation of the blood from the right to the left heart through the lungs. Before his time the armchair physiology of the school men had decided that such passage was effected through foramina in the interventricular septum, notwithstanding the assurances of anatomists that such foramina had no existence in fact. The belief was, nevertheless, dogmatically taught and a physiological *credo quia incredibile* was invoked, the foramina being conveniently relegated like some bacteria of to-day to the category of the ultra-visible.

Meanwhile, the enemies of Dr. Villeneuve, urged on by Calvin, had come to realise that the composer of the work on the restitution of Christianity was none other than Michael Servetus, the youthful author of the book on errors concerning the Trinity. Michael had not suspected this discovery and at first dissimulated and prevaricated; he began to realise the fate that was in store for him at the hands of the implacable Reformer. He was seized and tried for heresy at Vienne. Apparently with the connivance of some Catholic friends who were not disposed to play the game of John Calvin—whose heresies to their mind were scarcely less blasphemous than those of Servetus—he slipped the prison guard and escaped from the Dauphinal gaol of Vienne.

The Court in his absence duly convicted him of the following crimes and misdemeanours:—

Scandalous heresy and dogmatisation.

Invention of new doctrines.

Writing heretical books and disobedience of ordinances against heresy.

Disturbance of the King's peace.

Breach of the Royal Prison of Vienne.

And in default of the original he was burnt in effigy along with his books in the place of public execution.

For four months he wandered, we know not where, but at length most incautiously and unaccountably he entered Geneva. Whether he was trapped thither, or whether in a moment of vain exaltation he had resolved to meet Calvin in his citadel and denounce him to his face, we cannot tell; but once there his life was not worth a moment's purchase. He was recognised at a Sunday evening service in church, tracked to his inn, seized, and cast into the common gaol.

The trial, so-called, stands as one of the blackest blots in the history of religion. Reformers led by Calvin only recently liberated from the persecutions of Rome were now in turn employing all the arts of intrigue and sophistry, craft and subtlety, to crush an iconoclast with broader views than ever entered into their narrow conceptions of liberty or reform.

My friend, Sir John McDonnell, in a lecture at University College, with the skill of an accomplished jurist and the enthusiasm of a liberal mind, has well told the black and hideous story. He said:—

"The indictment contained a count for slander or libel of Calvin, perhaps cunningly introduced to give colour to the jurisdiction of the Geneva Court. In the trial were remarkable changes and irregularities, generally in favour of the prosecution. To the lawyer, the trial from first to last seems an amazing medley; there are confusion and vacillation, denoting determination to obtain a conviction without clear perception of how this was to be done; first one prosecutor, then another, then a third, and in the end Calvin, without any official position, dominating the proceedings. First one set of charges, including a count for slander of Calvin; these, withdrawn or dropped without, as might be expected, a verdict or judgment of acquittal being pronounced in favour of the prisoner; then a new set of charges substituted; the arguments in Court not closely confined to the issues thus raised, but allowed to wander into all sorts of theological discussions and to degenerate into rude personalities; the Court partly abdicating its functions and taking the opinions of various cities and individual pastors; the real prosecutor, Calvin, in the course of the trial and at a critical point therein haranguing the people and denouncing the accused, and by letters and otherwise seeking to influence the referees or assessors. The sentence, too, not strictly founded on the charges, but vague and declamatory, and in it no clear finding as to any offences committed within the territory of Geneva. Grotius, a severe critic of the trial, points out that Servetus had excited no disturbance or engaged in any propaganda within that territory. It is hard to believe that a trained jurist, such as Calvin was, did not see that he had gained his end and killed his man by irregular means."

The trial had lasted from July to October, and on the 27th day of the latter month the cruel, shameless sentence was to be carried out. All vacillation, fear, or weakness had vanished as the crown of martyrdom approached. Truly, he murmured that he dreaded lest "through excess of suffering he might prove faithless at the last and belie the convictions of his life." But it was not so. By the shores of that fair lake Leman, on that autumn morning, "the death without shedding of blood," was accomplished with all the long-drawn agony that devilish ingenuity could devise. But there was no recantation, no falling away, and the last cry of Calvin's victim was to that Divine Master whom he served, whose martyrdom he shared, and for denying whom he was done to death.

So died Servetus in his forty-fourth year, and we can in imagination trace from the field of Champel, the place of execution, how—

"The hooting mob of yesterday in silent awe return,
To glean up the scattered fragments into history's golden urn."

Three and a half centuries roll by, and what has modern thought to say in the light of history of the story I have just related? I cut from *The Times* of October 17th, 1911 the following extract:—

Monument to Servetus

"A monument to Michael Servetus was unveiled this morning at Vienne in Dauphiné where he resided as the medical attendant of the Archbishop Paul Paulmier, from 1541 to 1553. The monument represents the burning of Servetus at the stake (October 27th, 1553). He stands in the midst of the faggots chained to a stone with his book of theological tracts tied to his girdle. On his head is a wreath of leaves covered with brimstone. The representative of the University of Paris, Professor Charles Richet, spoke of the discovery by Servetus of the pulmonary circulation of the blood as marvellous and as *prolem sine matre creatam* since Servetus, unlike Harvey, had not practised vivisection, nor had he proceeded by a complete inductive study of anatomy. His contemporaries could not appreciate his discovery; it was not immediately followed up, and 75 years elapsed before it was scientifically established by Harvey. Professor Rudolf Berger, of Berlin, deposited a wreath on the pedestal of the monument in the name of 'democratic and liberal Germany.' M. Edouard Montet, Rector of the University of Geneva, was one of those who spoke of the intolerance of the 16th century, and of Calvin's share in the prosecution and condemnation of Servetus. He characterised Servetus as "that Spaniard of genius with the encyclopædic mind,' and said that his name had become the symbol of modern toleration. M. Ferdinand Buisson, one of the Deputies for the Seine Department, described Servetus as having 'maintained with sublime simplicity against the Pope of Rome and the Pope of Geneva the right of free thought and the right to be the servant of his conscience and his reason alone.'"

(*To be concluded in our next.*)

Note.—*A Clinical Lecture by a well-known teacher appears in each number of this Journal. The lecture for next week will be by Sir William J. Collins, K.C.V.O., M.S., M.D., B.Sc.Lond., F.R.C.S.Eng. Subject: "The Martyrdom of Medicine."—Conclusion.*

ORIGINAL PAPERS.

HOW TO GET THIN.

By P. ROSTAINE, M.D.,

Late Clinical Director at the Faculty of Medicine, Paris.

[Specially Reported for this Journal.]

Nowadays it is not the fashion to be corpulent; the proper thing is to have a slight, graceful figure, far removed from embonpoint, and *a fortiori* from obesity. For once, then, the physician is called upon to interest himself in a question of feminine æsthetics. We cannot, indeed, do otherwise than approve of this general tendency to impose a certain loss of flesh on the obese. Mere advice on our part with this object in view would no doubt have been fruitless, but now that fashion is on our side we stand a good chance of being listened to. At the same time, the mere fact of losing flesh is not *per se* any guarantee of good health; the result must be achieved in a particular way, and it is here that the problem becomes more complicated.

To begin with, we must make a distinction between persons whose obesity is clearly pathological, the outcome of a definite affection, usually more or less glandular insufficiency, and those in whom it is due to sedentary habits and carelessness in the matter of food. The latter constitute the great majority of the obese. Moreover the others, whatever their glandular insufficiency, whether thyroid, testicular, ovarian, suprarenal, pituitary or otherwise, are almost always amenable to proper hygienic treatment, complementary to organotherapy, which, alone, so often yields disappointing results.

The object which we must have in view in a thinning treatment, as M. Prudhomme would have said, is to get thin. This is too simple a formula, and I shall complete it by saying that the subject must not only lose weight, but must also diminish in size; he must lose fat and gain muscle. A sedentary obese subject may change shape without losing weight by an exercise cure which has for effect to develop his muscular system.

Only too often weight is taken as the only guide in a thinning treatment, and I think we ought also to rely upon measures of the chest, the abdomen, the circumference of the arm and leg, and the distance from the ensiform cartilage to the pubis.

The thorax ought to increase in size as the belly diminishes, and to obtain this result it is not enough to enforce a dietary; we must also have recourse to physical training which calls into play all the muscles of the organism. Sports such as fencing or cycling which bear on particular groups of muscles to the exclusion of the others, fall short of this object.

It follows that the scales and the tape measure must serve as guides in any treatment having for object to bring about progressive loss of flesh. They enable us to regulate the diet in such wise as to lose weight without losing too much at a time. At the onset, during the first few months of treatment, we can easily bring about a loss of seven or eight pounds without causing fatigue, but thereafter the loss of a couple of pounds a month is quite sufficient and does not depress the organism. The data also tell us whether harmony is maintained between the different parts of the body.

It is well for the physician to control the course of treatment by examination of the urine, the heart and the blood pressure.

Diet must be the basis of any treatment of obesity. I repudiate the plan adopted by certain fashionable people who deliberately cut down liquids, a practice which at most deprives them of four or five pounds of water retained in the circulation and that can be got rid of, as Widal has shown, by the dechloridation treatment but the lack of which is very apt to interfere with elimination. I also repudiate actual fasting in favour of a regimen which is not unduly restrictive as to quantity but from which farinaceous articles are in great measure banished.

We must forbid bread almost entirely, allowing a daily ration of at most four ounces. We must disadvise the pastes (macaroni, vermicelli, and the like), rice and mashed vegetables, haricot beans, peas, lentils, broad beans. Potato contains 90 per cent. water, so is permissible in moderate quantities. We therefore allow eggs, fish, meat (raw or cooked) and green vegetables with small amounts of cheese and fruit. The question of quantity will be decided by the weight curve. Daily weighing is one of the best auxiliaries of the thinning treatment. While we forbid farinaceous things almost entirely, we must also moderate the use of fatty substances—butter and sugar—though not banning them altogether.

The nature of the articles of food allowed dedepends upon their formula, while the quantity is regulated according to the weight.

A person afflicted with obesity will generally improve under this regimen, but, as I have already pointed out, the treatment must be supplemented and completed by physical culture and exercise, and we must bear in mind that while a loss of weight is a legitimate ideal a diminution of bulk is even more to be desired.

Massage is a useful adjunct from the æsthetic point of view in order to prevent the skin of the face becoming wrinkled and also to combat abdominal adiposity which is always very refractory.

Then arises the question as to the length of time during which it is desirable to pursue this thinning treatment, and this is tantamount to asking what is the normal weight of a healthy subject. It is customary to state that this weight should equal the number of centimetres of height above one metre. This figure, empirically established, may be exceeded or not attained, but it does approximately represent the physiological weight of a normal, properly developed subject.

Simple enough in theory, this course of treatment implies a strong will in those who aspire to take advantage of it. It requires to be persevered with, in some cases for months and in others for years, but the result is well worth the sacrifices which it entails. There is invariably a diminution of the blood pressure, consequently suppression of the tendency to plethora and its consequences, postponement of the advent of arterio-sclerosis—*i.e.*, old age.

But when the result has been achieved it will have to be maintained by adhering to hygienic habits in the matter of diet and exercise.

PERCUSSION OF THE LUNGS.

PART I.—AN EFFORT TO STANDARDISE THE DEGREES OF DULNESS.

PART II.—THE ADVANTAGES OVER THE OPPOSITE METHOD OF PERCUSSION FROM BASE TO APEX. (*a*)

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Part I.

While studying physical diagnosis as a student, one of the things difficult for me to understand was percussion. As I talk to students in the medical schools now, I am told by them that percussion is one of the hard things for them to learn and that it means the least to them of the physical signs. It has interested me to study why this is so, especially as I have come to regard percussion as a distinctly definite and valuable diagnostic means. This is so true that instead of correcting my dulness by what I learn from auscultation, as I once did, I now correct my auscultation by what I learn from percussion.

My studies have led me to recognise that the standards of clinicians for the various degrees of dulness, 1-2-3-4-line dulness—meaning respectively, impaired resonance, definite dulness, very marked dulness and flatness—are so individual, so lax and so diversified that they amount to no standard at all; certainly not a standard that can be grasped by an intelligent student. It is a common occurrence for a physician to percuss a chest which shows nothing but 2- or 3-line dulness, and to have him call the 2-line dulness normal resonance, and in consequence, call the 3-line dulness only 1. In this way serious pathologic conditions are overlooked. The following instance, which illustrates my point well, impressed me distinctly, as it was

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(*a*) Paper read before American Climatological and Clinical Association, Atlantic City, June 20th, 1914, and published in the *Journal of the American Medical Association*, October 17th, 1914.

furnished by one of the leading hospitals of Boston and by one of the good instructors of physical diagnosis in the Harvard Medical School. This physician examined a well-built, muscular young man, a light-weight wrestler by trade, who had lost almost no weight, looked perfectly well and complained only of hoarseness. The examination, signed and written by the physician, stated that "the chest was normal throughout, lungs showed no disease." I examined the patient the next day at the Boston Consumptives Hospital and found 3- and 2-line dulness throughout both chests, and fine crackling râles with cough throughout. The larynx showed miliary tuberculosis and the sputum contained numerous tubercle bacilli. I think that the first clinician failed to recognise this very serious condition because he had no fixed standard of dulness.

In 1912 I began to study the pitch of the various notes of percussion in an effort to establish for myself some definite standard. I made a frequent practice, therefore, of whistling the pitch of the notes as I percussed the lungs. I soon learned that the variation between normal resonance and flatness was a range of over two octaves. This winter I have carried the investigation further. With an assistant, who has no medical training, I plotted out on the piano the notes which corresponded to what I had come to consider my personal standard of 1-2-3-4-line dulness.

In each instance I took at least six patients and did not tell my assistant what note I expected to find. At first she hummed the note, found it on the piano; then we freed our minds of the notes by playing chords. I next hummed or whistled the note and she found that note on the piano. A comparison of our two notes showed that we never differed more than a half tone. Later we concluded that an easier and more accurate method was to strike middle C and then work up or down the scale until both of us agreed that the note on the piano corresponded with the percussion note.

In this way we examined six cases for each note. We also came back to the same case two or three times after examining others to determine how well we would agree with our former notes. When I percussed the same individual in the same place, we always agreed with our previous findings. Not only did we agree on the note previously found in a particular case, but the notes for the different degrees of dulness were the same in a variety of individuals. This proved that the problem was purely a matter of pitch and not one of individual variations.

I determined in this manner that normal resonance is F or F sharp below middle C; 1-line dulness A below middle C to middle C; 2-line dulness E flat to F above middle C; 3-line dulness B flat to intermediate C; 4-line dulness E to F above intermediate C. Thus it will be seen that there is an interval of an octave between normal resonance and 2-line dulness, and an interval of another octave between 2-line dulness and 4-line dulness or flatness.

Has this any practical value? Or is it simply an interesting thing theoretically and musically, requiring a specially trained ear to detect these changes of pitch? I think that it does not need a specially trained ear; that it is of distinct practical value and can be acquired readily by anyone who has had these differences pointed out to him. If it is not practical, then percussion as a physical sign is not practical. The discussion of this point, however, brings me to the second part of my paper.

Part II.

To percuss well, the stroke on the pleximeter must be sharp and quick. A rapid recovery is essential. The motion may be best illustrated by saying that it should be made exactly as a woodpecker uses his head in boring a tree. All the motion should come in the wrist, and none in the arm. This secures a crisp note. The pleximeter may be held flat or raised, so that only the end of the finger touches the chest. In the latter position a distinctly smaller area is percussed at one time. The note, consequently, is less disguised by the surrounding normal or semi-normal tissue. It is essential, moreover, to remember in a disease like tuberculosis that normal lung is always in intimate contact with abnormal. This change from a flat to finger-tip pleximeter does not alter the pitch of the pathological note. It only makes the note much more evident.

Of far greater importance than the proper manner in which to use the plexor and pleximeter, however, is the direction in which the chest is percussed. It should be percussed upward and not downward, from the base of the lungs to the apex and not from the apex to the base as has been taught so universally. This is so important that I wish to state my reason for it carefully.

A. It is much easier for the ear to pick up a higher note from a lower, than it is to do the reverse.

B. It requires a much lighter stroke to bring out the normal note than the pathological.

C. It is the rational plan to work from the normal as a standard toward the pathologic. The reverse leads to faulty standards.

D. The apices, as is well known, are most frequently affected and more rarely give a normal note. To start at the apex, therefore, is usually to commence with a pathologic note. This prejudices the further examination. With downward percussion, the higher note merges into the lower too imperceptibly to do accurate work. This is so for two reasons: first, as I have already said, the mind becomes prejudiced in favour of a pathologic note and consequently does not attempt to make fine distinctions; secondly, a heavier stroke is required for the pathologic note and when the more resonant is reached, the percussion is continued too heavily to detect what should be readily appreciated: differences in the force of stroke necessary to bring out a good note. In this way the examiner deprives himself of a very important guide to collect accurate data.

The best place, therefore, to start the percussion of the lungs is the left lower front, as this is most often normal. From there, work upward to the apex, and record the various notes without percussing the opposite side. Then percuss upward on the right side and finally from side to side and alter your first findings, if necessary. The comparative note between similar areas of the two lungs is often misleading, as both may be pathologic. This comparison, therefore, should only be used later to correct first impressions and to detect or confirm fine gradations. In doing the backs follow the same order, left lower to apex, right lower to apex, then from side to side. If this order is followed, I am sure that interesting observations will follow as regards the usual progress of a disease like tuberculosis, and the relative frequency between incipient cases and chronic ones of long standing with marked reparative ability.

I am absolutely convinced that a fine ear for percussion can be trained only by this upward method. I have been much impressed by the rapidity with which students appreciate the difference between the two modes and the readiness with which they acquire a standard of dulness as a result of it.

I said that I considered that a musical standard is practical and can be taught easily to the non-musical. I should like to prove that these statements are true. In the first place, I have had no difficulty in teaching such a standard to quite a wide range of students, good, fair and poor.

How, then, can this be taught the non-musical man? In the first place, the mind must be entirely freed from all preconceived ideas as to what pathologic process underlies the varying degrees of dulness; what stage of the disease is indicated and what bearing the dulness has on the prognosis. I am sure that I am correct when I say that many men to-day consider that a 3-line dulness over all of both chests means a hopeless condition of the lungs. This very attitude of mind prevents them from making what should be an accurate scientific record of what they find. One of the chief reasons why I have so little difficulty with students is because their minds are open. I have several times been told by older men that the patient whom I was examining was too well to have such extensive dulness as I claimed. I am convinced that, until a more uniform standard of dulness is adopted, we are in no position to discuss the pathology of 1-2-3-4-line dulness, when applied to such a disease as tuberculosis. At present such terms are as much of a hindrance as a help in the diagnosis and prognosis of chest cases.

In the second place, and in teaching students this occupies the first consideration, when resistance is felt under the pleximeter finger, the note is close to B below intermediate C or 3-line dulness. As we are all accustomed to this feeling of resistance under the finger when percussing, we have here not only an easy guide to any man, but also an accurate one. This observation depends on the muscle sense of the fingers of the physician and not on his ears. Until you feel this resistance, you have, therefore, to decide only between normal resonance and 2-line dulness.

Now the differences between normal resonance and 2-line dulness can be detected readily by the muscle sense also. Here, however, it is the muscle sense of the plexor rather than that of the pleximeter. There is a very definite difference between the gentle tap which is sufficient to bring out the normal note, and the decided stroke necessary to make the note of 2-line dulness loud enough to carry any distance at all. The physician who trains himself to start with very light percussion will quickly learn to appreciate these differences. That is why the examination should begin with that part of the chest which is most likely to be normal.

Although I have placed stress on the muscle sense of the pleximeter in detecting 3-line dulness, and on the plexor in detecting 2-line dulness, in both instances the muscle sense of both hands comes into play. As we measure the resistance under the pleximeter, we naturally measure the force of the plexor stroke. On the other hand, as we measure the lightness of the stroke of normal resonance in the plexor wrist, at the same time we measure the force of the stroke on the pleximeter. This, then, is as much a matter of training the muscle sense of the fingers and hands as it is of making use of a well-trained musical ear.

I wish to repeat, however, that one of the great barriers to acquiring this skill is the preconceived ideas which we have as to what the underlying pathologic condition must be for a given degree of dulness. I am free to confess that my physical examination occasionally makes it hard for some of my patients to enter the State sanatoriums. That is because more attention is attracted by my lines of dulness than by my report of symptoms.

CONCLUSIONS.

1. Present methods of percussion are of little value, because, far from having any universal standard of dulness, there is not, in most instances, even an individual standard.
2. To a field in which there is no accurate standard, I bring some standard, to me one that is definite and easily acquired.
3. Normal resonance is F to F sharp below middle C; 1-line dulness, or impaired resonance, is A below middle C to middle C; 2-line dulness, or definite dulness, is E flat to F above middle C; 3-line dulness, or very marked dulness is B flat below intermediate C to intermediate C; 4-line dulness, or flatness is E to F above intermediate C.
4. No intelligent idea of diagnosis, prognosis, nor of the underlying pathologic condition can be formed by percussion without some such definite standard.
5. This standard can be acquired readily by the ear, and by the muscle sense of both hands, measured by the force of the plexor blow and the resistance under the pleximeter.
6. Upward percussion is an absolute essential of correct work. The old method of downward percussion should be discarded, and no longer taught to medical students.

THE SUBCUTANEOUS INJECTION OF OXYGEN.

By H. O. HOWITT, M.D., L.R.C.P.LOND., M.R.C.S.ENG.,
Guelph, Canada.

EVERY practitioner finds some time or other the giving of oxygen to be indicated as a therapeutic measure, and he gives it—with results so indifferent that beneficial effects are invariably of note only by their absence.

I have given oxygen a great number of times since Derose's article was published in THE MEDICAL PRESS AND CIRCULAR of May 1st, 1912. I believe this method to have been unused before in this country, except for the treatment of milk fever in cows. With this disease the milching cow suddenly goes off its food, relaxes its neck muscles, loses interest in its surroundings, falls, and the hind legs become useless. The cow is apparently about to die, until a veterinary surgeon, well up in his work, arrives on the scene and injects oxygen into the udder, and almost instantaneously the animal recovers. I am informed that when this treatment is not used the cow frequently dies within three or four hours from the onset of the symptoms. Acting on this principle, Dr. Williams reported in August, 1912, intra-mammary injections of oxygen for eclampsia, and attributed any beneficial effects which were noticeable to absorption of the oxygen.

Delmas in 1912 reported excellent success in resuscitating asphyxiated infants by this method. Derose recommends the use of oxygen by the subcutaneous method in cases of tuberculosis with dyspnœa, and remarks that "the temperature falls and a feeling of well-being immediately prevails, for which the patient is very grateful, and sleep, previously impossible, becomes soothing and refreshing." He suggests its employment for (1) the toxic dyspnœa of uræmia, (2) eclampsia, (3) carbon di-oxide poisoning, (4) in certain cases of diabetes, (5) emphysema, (6) pertussis, (7) asystole, and (8) in those cases where mechanical obstruction is precisely located in the air passages.

My experience, which now covers nearly two years, includes the dyspnœa of tuberculosis, gas poisoning, pneumonia (lobar and lobular), œdema of the lungs, bronchial asthma, and operative cases.

In no case were any ill effects noticeable, either at the time or afterwards. One asthmatic said that it relieved him, but I did not notice appreciable improvement. The carbon dioxide case may have recovered without the injection, but in some of the pneumonia and operative cases the results were simply astounding.

Case I.—One of my early experiences was with a man whom I had a few days before operated on for perforated gastric ulcer. He had a well-marked bronchitis at the time of operation which developed into pneumonia. The case rapidly became apparently hopeless; there was no noticeable breathing, the pulse was imperceptible, a cold clammy sweat had broken out on the forehead, the extremities were actually cold at the knees and elbows. I injected oxygen subcutaneously and *in less than one minute* the man could speak with a fairly strong voice, the pulse returned with fair volume, the colour reappeared in the skin, and he breathed easily. There were three astounded witnesses to this scene, or I would refrain from mentioning it. Subsequently the man made an uninterrupted recovery.

Case II.—A woman, æt. 66, with lobar pneumonia; temperature $103\frac{1}{2}$ degs., respirations 46, rapid pulse, rusty sputum. The condition became alarming on the fourth day from the onset. Oxygen was injected. The temperature dropped a degree, and almost at once the breathing became less laboured, and the patient was very grateful. Injections were given twice daily, and the case no longer resembled pneumonia.

Case III.—A young man with lobar pneumonia. He was quite delirious, and had not slept for sixty hours. In an unwatched moment he crawled out of the window into the snow. On his return to bed oxygen was injected, and before the needle was withdrawn he fell into a sound sleep which lasted two hours. What is particularly interesting about this case is that the injection was intramuscular and apparently was the only thing that gave any relief. This patient succumbed some three days later.

Case IV.—A young woman with lobar pneumonia, temperature 104 degs., pulse 150, respirations 46 to 52, and apparently about to die. This was three days from the initial chill. With these conditions I took over the case, injected oxygen subcutaneously and she made a rapid recovery. Of course this injection may have coincided with a third-day crisis.

Case V.—Dr. Orton, of Guelph, informs me that he was about to operate on a case for empyema when the patient suddenly stopped breathing, turned extremely cyanotic, and those present considered the end had come. The anæsthetic was immediately stopped and oxygen subcutaneously injected. At once the cyanosis disappeared and the pulse and breathing returned. The operation proceeded with eventual recovery.

Case VI.—Dr. J. McCrae, of the Royal Victoria Hospital, Montreal, wrote me to the following effect:—In only one case in thirty were the results of oxygen *sensational*. This was a man, æt. 34, just operated on (excision of the bowel for new growth). Three hours after the operation the man appeared to be dying. The lungs were œdematous. Respirations were shallow and rapid, and Dr. McCrae's impression was that the patient would die within the next fifteen minutes. Four injections of oxygen were given, and the man recovered without alteration of the respiratory rate, and the oxygen immediately increased his comfort.

The following is a description of the apparatus and the method of its use (a): Oxygen is generated from sodium peroxide coming in contact with water in a closed cylinder, and the gas set free escapes by means of a long rubber tube, at the distal end of which is an aspirating needle which is inserted into the subcutaneous tissue. The tube is then oiled and by a pumping action of the hand, sufficient force is used to raise a lump once or twice as large as the closed fist.

The oxygen injected by this method forms a local emphysema which lasts for hours and may travel over the surface of the body. Apparently the body only absorbs that which is necessary. It is really the formation of an artificial lung. I have never known a single ill effect to follow its use; in every case where the breathing was laboured, the patient experienced some relief. In some cases, the ones I have mentioned, the results were almost as wonderful as a chapter from the "Arabian Nights," and were witnessed by several medical men and nurses. Before passing judgment, I would ask that it be given a fair trial. One case like these mentioned, among a great many who were helped only a little, would make it well worth while.

It is not a "sure cure" for pneumonia or any other disease, but when oxygen is *urgently* needed by the cells of the body this method of introduction of oxygen fills the requirement. In my experience the old method of inhalation was a failure.

OPERATING THEATRES.

THE MIDDLESEX HOSPITAL.

Mr. Sampson Handley operated on a woman, aged 57, for carcinoma of the rectum by the abdomino-perineal operation. After the performance of the abdominal part of the operation, the blinded upper end of the colon was brought out through a stab-wound through the left rectus muscle at the site of the future colostomy opening. The bowel was not opened, but a large rubber catheter was introduced into it through a small puncture, and was tied in by means of a purse-string suture. Mr. Handley explained that the object of the catheter was to permit the introduction of saline into the bowel. Its rejection or loss was impossible, and the patient could thus be safely tided over the dangerous period of shock during the succeeding two or three days. The perineal portion of the operation was completed in the usual manner.

In his remarks, Mr. Handley said: In my opinion, with rare exceptions, and excluding squamous-celled growths beginning near the anus, the only two operative procedures worth considering in cancer of the rectum are: (*a*) abdomino-perineal excision of the rectum with the formation of a colostomy; (*b*) a simple colostomy.

This view leaves out of account the possibility of keeping the natural fæcal outlet at the anus, an end very desirable in itself. But attempts to bring down the upper colon and fix it to the sphincters are very risky. The mortality of an abdomino-perineal excision terminated by bringing down the bowel is quite double that of the same operation terminated by a colostomy. Even if the patient survives the operation the anal sphincters may subsequently become fibrotic and useless. The risk of recurrence of the growth in the anal structures left behind must not be forgotten. In many cases, too, the final result is a sacral anus owing to the yielding of part of the line of union of the bowel.

As regards excisions of the rectum performed from below, some surgeons, notably Mr. Harrison Cripps, have recorded satisfactory results in a considerable number of cases; others, including myself, have experienced recurrence in almost every case. But it has not been my good fortune to meet with early cases where the growth is a small one and well localised to one portion of the bowel wall. In such cases some competent authorities would advocate a perineal excision. I agree that very stout patients, those with impaired constitutions, and those over seventy years of age, are unsuitable subjects for the abdomino-perineal operation. In such cases I should perform a simple colostomy. But even in small early growths, if the patient is a suitable subject, I should advocate the complete operation. For it is known that glandular involvement may occur when the local growth is still in an early stage, and the abdomino-perineal operation is the only procedure by which all the glands connected with the rectum can be removed.

(a) The *Canadian Medical Association Journal*, November, 1914.

As regards immediate risk, the perineal operation is undoubtedly the safer procedure at present. But as the combined operation is being rapidly improved, I anticipate that its mortality will soon fall to ten per cent. Mr. Cripps' mortality for perineal excision is eight per cent. (3 deaths in 38 cases). Mr. Miles among 26 cases of the abdomino-perineal operation lost ten. The same operation, perhaps, however, on rather more restricted lines, shows in my own hands a mortality of three among fourteen cases. Only one death occurred in the first ten cases, a result mainly due, I believe, to the method of post-operative saline infusion which I advocate.

TRANSACTIONS OF SOCIETIES.

ROYAL SOCIETY OF MEDICINE.

SECTION FOR THE STUDY OF DISEASE IN CHILDREN.

Meeting held November 27th, 1914.

The President, Mr. T. H. Kellock, in the Chair.

EXHIBITION OF CASES.

Dr. E. B. **Gunson** showed a child with the left lower median incisor tooth erupted at birth. It was a male infant, one of twins born at full term. On the tenth day the tooth, which was then loose and attached only by the gum, was removed, as its presence interfered with suckling. The right lower median incisor had then also appeared through the gum. The child was well developed and presented no other abnormality.

Dr. J. **Porter Parkinson** showed a case of Friedreich's disease with spastic phenomena. The boy, æt. 13, was the ninth of ten children. He began to walk at three years, but never walked well, and was never very intelligent. He was now a fairly well-grown boy with a rather unintelligent expression. Speech indistinct, slurred and syllabic. Gait spastic, uncertain; slight difficulty in turning. Romberg's sign negative. The legs were held stiffly, the muscles hard and well developed: the foot showed marked pes cavus with some equinus; the great toe was hyper-extended at the proximal joint, and the extensor tendon very prominent. There were marked knee and ankle clonus and an extensor plantar reflex.

Mr. L. **Bromley** showed a case of tumour of the upper extremity of the femur in a boy æt. 12. A swelling of the right thigh had been noticed for the previous seven or eight weeks. There was no definite margin, and no heat or tenderness. Movements at the hip-joint were free. A skiagram showed an endosteal growth of the femur. On exploration, the bone was found to be expanded and covered by normal periosteum; a thin layer of compact bone surrounded a mass of cartilage which had entirely replaced the medullary cavity. Microscopic examination showed pure chondroma, and there was no suggestion of malignancy.

Dr. T. R. **Whipham** showed two cases of heart-block. (1) A female infant, aged 2 years and 2 months, who was born at full term, and had always been backward. The pulse was slow, full and regular. The right side of the heart in the skiagram appeared to be enlarged, and the outline of the organ was almost globular. All over the præcordium a loud systolic bruit was audible, the maximum intensity being between the apex and the left sternal border and extending up to the pulmonary area. The heart rate was slow, but it varied from time to time, the lowest recorded being 48, and the highest 80. An electrocardiogram showed a perfectly regular 2 : 1 heart-block. There was a polycythæmia of 8,400,000 red corpuscles per cubic millimetre, and the hæmoglobin value was 110 per cent. (2) A girl, æt. twelve. Six years ago it was noticed that she had a slow pulse, but it was not until 18 months ago that any cardiac symptoms occurred; since then she had complained of pain around the heart on exertion. She was well grown and showed no cyanosis. The pulse was slow, usually between 50 and 60 per minute, and slightly irregular in rhythm; the extreme rates noted had been 40 and 64. The heart was considerably enlarged, especially on the left side, and a systolic bruit was audible with its maximum intensity in the fourth interspace near the sternum. The second sound in the pulmonary area was at times reduplicated. An electrocardiogramme and a polygraph tracing showed a marked dissociation between the auricular and ventricular beats, and an irregularity in the rhythm of the latter. A subcutaneous injection of atropine sulphate (1/60 gr.) caused the ventricular rate to be increased from 40 to 60 per minute, but did not affect its arrhythmia. The patient at times had complete heart-block with pulse slow and regular, and at times incomplete heart-block of high grade (3 : 2, 2 : 1, and mixed) which produced an irregular pulse.

Dr. **Whipham** also showed a case of diabetes insipidus with infantilism. A backward boy, æt. 4. He could not yet talk. Height 2 ft. 9 in., weight 1 st. 6½ lb. About two years ago he started to pass a large quantity of urine and to complain of great thirst and to lose flesh. On admission to hospital he was passing from 200 to 900 c.c. of urine per diem, but under general treatment and rest the maximum had been 300 c.c. in a day. The urine was very pale, of low specific gravity, and contained no abnormal elements.

Dr. J. D. **Rolleston** showed a case of giant nævus in a girl, æt. 7, showing a pigmented, hairy and warty nævus and numerous accessory nævi. The principal nævus occupied the neck, back, right thigh and buttock. There was no spina bifida. The nævus was covered by downy hairs mostly of a light colour, except in the interscapular region, where they were darker. During the third or fourth month of pregnancy the mother had been frightened by a black and tan dog which had tried to bite her husband, and had thrown her arms over her head. She had anticipated that the child would be marked, though her medical attendant had tried to persuade her to the contrary.

Dr. **Bernard E. Myers** showed a case of splenomegaly improved by antisyphilitic treatment in a boy aged 1 year 11 months, who was admitted to the Royal Waterloo Hospital last June (then aged 18 months) for diarrhœa and wasting. When first examined the abdomen was distended. The child was listless, anæmic, of an earthy complexion, and with a sunken fontanelle. Some signs of rickets were present. There were about six motions in the 24 hours. The temperature and pulse were normal on admission, while the respiratory rate was slightly raised. The spleen was enlarged, moderately firm, and extended to just below the level of the umbilicus. The edge of the liver was felt 1¼ inches below the costal margin. The Wassermann and von Pirquet reactions were both positive. The blood-count showed 14,000 per c.m. of leucocytes, and 44.0 per cent. of hæmoglobin. A provisional diagnosis of splenic anæmia of infancy was made. Hydrarg. c. creta. ¼ gr. t.d.s., together with a bismuth mixture, were given. Only slight improvement being noticeable, this treatment was stopped in favour of mercurial inunction over the region of the spleen. Distinct and steady improvement followed the inunctions. The diarrhœa gradually ceased and the child's appearance became healthier. The spleen was noticeably smaller week by week. On September 17th he was put on syrup. ferri iodide, 10 minims t.d.s. On October 9th a blood-count showed 90 per cent. of hæmoglobin, and 10,000 per c.m. of leucocytes. His present weight is 1 st. 4 lb. 12 oz. He looks well, and is now a cheerful intelligent child, and takes ordinary diet. Both spleen and liver are still a little enlarged. On November 20th his blood was again examined by Dr. Leatham, and his report showed 100.0 per cent. hæmoglobin, and 16,600 per c.m. of leucocytes. The red cells had also increased. Wassermann reaction positive, although not strongly marked.

Mr. **Philip Turner** showed a case of double-retained testicle, in which the left testicle was transplanted to the right side of the scrotum and the right testicle to the left side, in a boy æt. 12, who was admitted to hospital for double inguinal hernia with imperfectly descended testicles. Both testicles, which appeared to be ill-developed, could be palpated in the inguinal canals; they had never descended below the external abdominal rings. The hernia was successfully operated upon, and each testicle was transplanted to the opposite side, an interval of two months elapsing between the transplantations.

Mr. **Turner** also showed (2) a case of double retained testicle in which the right testicle only had been transplanted. He proposed to transplant the left testicle later. (3) A case of seasonal enlargement of the parotid glands. The patient, a boy, æt. 14, had had a painful enlargement of both parotid glands every spring and autumn for the last nine years. The other salivary glands were not affected, and the boy showed no other abnormality except that he was unduly sensitive to cold.

Dr. **F. J. Poynton** and Mr. **H. Morriston Davies** showed a case of cleido-cranio-dysostosis, in which the removal of the outer part of the imperfect right clavicle relieved severe symptoms from pressure on the brachial plexus, in a girl, æt. 20. She had been completely free of the severe neuralgic pains from which she had previously suffered, her hand had recovered power, and she had resumed her occupation. The only complaint now was of a dull ache in both shoulders, brought on by the long hours during which she sat in a position sewing over her work that tended to make the shoulders "over-stoop." This was relieved by sitting up with the shoulders braced back, and was of an entirely different nature to the former trouble, which was caused by the inner end of the outer fragment of the right clavicle hitching under the outer end of the inner one.

Dr. **Frederick Langmead** showed a case of achondroplasio, pseudo-rachitic, in a female infant aged six months. Many signs of rickets were present, but the legs were disproportionately short compared with the body, and the finger-tips with arms extended reached only to just below the crest of the ilium. On this account the provisional diagnosis of achondroplasia had been made, although the head, face and hands had not the characteristic appearance.

Dr. **J. L. Bunch** showed a case of keratosis follicularis spinulosa in a boy æt. 4. Lesions had first been noticed about 14 months ago on the neck and later on the arms, back and abdomen.

Dr. **C. O. Hawthorne** showed a case of acholuric jaundice. The patient, a girl, aged 1 year and 3 months, was a first-born child, said to jaundiced from birth. She had jaundice, considerable enlargement of the spleen, some enlargement of the liver, no bile in her urine, and normal stools. Blood examination showed white cells, 14,500 (polymorphs, 44.8; small lymphocytes, 47.2; large mononuclears, 6.8). The blood serum contained bile pigment.

Dr. **Hawthorne** also showed a case of paramyoclonus multiplex. The patient, a boy, æt. 6, was said to have been jerky since birth. There were frequent, quick, clonic contractions, most marked in the abdominal muscles, but visible also in the shoulders, upper arms, thighs, cremaster muscles, and to some extent in the face. The contractions were bilateral, but the two sides were not always affected simultaneously.

Sir Wm. Collins has been again elected President of the University of London Graduates' Association, in succession to Lord Moulton, F.R.S.

ROYAL ACADEMY OF MEDICINE IN IRELAND.

Section of Obstetrics.

Meeting held Friday, November 27th, 1914.

The President, M. J. Gibson, M.D., in the Chair.

EXHIBITS.

SARCOMA OF UTERUS.

Dr. **Solomons** showed a uterus removed from a woman æt. 47, married 16 years. She had had four children and one miscarriage, the last child eight years previously, the miscarriage six years previously. Menstruation had been irregular for the last six months. On bimanual examination, the uterus was found to be enlarged by a tumour on the anterior wall. The parametria were normal. On opening the abdomen, extravasated blood was seen, which exuded from the region of the right cornu. On grasping the uterus blood escaped from this site. He considered that the case was one of sarcoma, and performed Wertheim's hysterectomy. The glands were not involved. The patient made a good recovery. He submitted the specimen to Dr. Wigham, who reported it to be a mixed-cell sarcoma, probably originating in the muscle of the uterus. There was one special point to which he alluded in reference to the specimen. Sarcoma of the uterus was said to be a disease of early life. He had now seen a fair number of cases, and all were about the time of the menopause.

Professor **A. Smith** drew attention to a condition which he noticed in sarcomatous cases. A mass was found coming through the os somewhat like a large polypus; when the finger was pressed against it the tissue was easily broken, and a blood-clot was discovered. He had not seen the condition described in the text-books. He was able clinically to form the opinion that such cases were sarcomatous.

Dr. **Gibbon FitzGibbon** recalled a case in which he removed a sarcoma from a patient æt. 27. He did not think he could agree that sarcoma of the uterus was not a disease of early life.

Dr. **Rowlette** said that the possibility had occurred to him of the tumour being a chorion epithelioma; but he thought, on the whole, that it was more like a sarcoma growing in a fibroid. Few cases of the kind that he had seen had occurred in very young women. He recalled a case in which a patient had a fibroid for twenty years before a sarcoma developed.

The **President** recalled a case in which he had removed a sub-mucous fibromyoma, and a diagnosis of sarcomatous degeneration was made microscopically. The patient did not undergo any further operation, and was still alive after a period of seven years. His experience of other cases led him to conclude that the condition was found most usually in elderly women, and that the prognosis was very bad.

TUBAL ABORTION.

Sir **William Smyly**, in showing the specimen, said it was chiefly a blood-clot, and a little fœtus, about three-quarters of an inch long, was to be seen in the middle of it. The capsule of the tumour was formed by the extremity of the Fallopian tube and some blood. The patient was aged 28, married three years, and had one child aged two. She menstruated regularly up to June, missed that period and the two following ones. On August 10th red discharge set in, and after ten days she got pains in the back, and was supposed to have aborted about August 20th. From that time there was continuous red, bloody discharge from the vagina, and she was sent into hospital to be curetted. On examination, the tumour was found on the right side of the uterus and attached to it by a pedicle. Diagnosis of ovarian tumour was made. When the abdomen was opened the ovaries were found healthy. The peculiarity of the case was the small fœtus, which would appear to be about six weeks' fœtus, and supposing the pregnancy to date from May, which would have been five months, this would have been a long time for such a small fœtus to remain preserved. The symptoms were those of ectopic pregnancy, but he considered it more likely that the supposed abortion was really an abortion, and that between that and October she conceived the ectopic pregnancy.

ÆTIOLOGY AND TREATMENT OF TOXÆMIC PREGNANCY.

Dr. E. H. Tweedy read notes of a case of severe hyperemesis gravidarum, where recovery was shown to have followed from a very severe and exhausting attack by insisting on abstinence from all food, and the administering of rectal injections of warm alkaline solutions to the amount of four pints in twenty-four hours. There was accumulative clinical evidence to show that the majority of toxæmic conditions were due to food. The processes which normally took place between food particles and their anti-bodies were undoubtedly interfered with in pregnancy, and it was reasonable to conclude that this interference was connected with the foreign albumin derived from chorionic villi, which was known to circulate in the blood. He suggested that the efforts to neutralise this foreign albumin caused a diminution in the blood of normal food antibodies. Morning sickness was an effort to eliminate food which had failed to combine with its proper anti-body. The extent of this failure was the measure of severity in toxæmia. Clinical evidence was convincing on the following points:—Food, even milk, could induce vomiting or convulsions. Injurious consequences of food were not due to (1) irritation or (2) fermentation, but to absorption following the earliest processes of digestion. Carbohydrates and proteids were equally injurious. When it was once admitted that food could to some extent increase the severity of toxæmia, it was not logical to limit the extent of its deleterious action.

Dr. FitzGibbon said he thought it was the toxins produced by the decomposition of food that were the primary cause of the toxæmia. By not allowing constipation to develop, toxæmia could be prevented, and where there was toxæmia the administration of purgatives rapidly got rid of it. He considered that the experience in most cases of eclampsia was that the patients had also a history of constipation, and, in his opinion, if the constipation was prevented, the number of cases of eclampsia would be diminished. The excreting organs of the pregnant woman became over-taxed in the effort to excrete the waste products of the pregnancy plus the abnormal products of decomposition of food, and consequently toxæmic symptoms developed.

Professor A. Smith said most of them recognised the cases of hyperemesis as reflex, neurotic, and toxæmic. The latter was looked upon as coming on later than the second month. He noticed that Dr. Tweedy's patient vomited every twenty minutes, and therefore all food was rejected; hence, he could not think that food determined the condition. He suggested that the cause of the toxæmia was of fœtal origin. He would administer distilled water, and would consider the exhibition of bicarbonate of soda or anything of that nature wrong. The ordinary enemata ought also to be given.

Dr. Solomons said that the greatest difficulty in these cases was to know how long to leave the patient before inducing labour. He considered that Dr. Tweedy must have had a great temptation to empty the uterus when he found the patient so ill. He did not know if the patient was a primipara, but if so, he suggested that she would require careful watching for signs of eclampsia when approaching confinement.

Dr. Madill said it seemed to him that during the early months of pregnancy an equilibrium was established which might be upset in later months. He suggested the possibility of the condition being due to the absorption of poisons from the intestinal tract, aided by excessive secretion of some of the ductless glands. The ductless glands were known to be hypertrophied during pregnancy. He did not think the so-called ammonia-nitrogen co-efficient in these cases would be of much use as a diagnostic sign. He agreed as to the harmful effects of the giving of food prematurely in cases of toxæmia. He recalled a very serious case exemplifying this danger, where a severe attack of toxæmia followed a mild attack owing to the premature administration of a little milk.

The President said that the majority of these cases were hysterical, and, for them, treatment such as that given by Dr. Tweedy was satisfactory. From his own cases of toxæmic hyperemesis he had concluded that the best results were got by terminating the pregnancy when the patients did not react within a reasonable time to the usual treatment for the toxæmia. His opinion was that while it was obvious that food was injurious to a patient suffering from severe toxæmia of pregnancy, it was difficult to see why food alone should be the cause of the toxæmia.

Dr. Tweedy, replying, said he brought the paper forward to get an expression of opinion as to the exact *rôle* of food in these cases. If food could lend its aid to poisoning a patient he would like to know how much aid it could lend. He believed that hysteria acted largely in these cases, but thought that even in the most hysterical case the toxic effect must take first place. The primary cause of the vomiting in every case was the toxæmia, and he maintained that the toxæmia was due to the food. During his experience at the Rotunda Hospital he had never seen a death from hyperemesis. Milk was the most harmless of all foods, but even it would poison the patient. If the cause of toxæmia was of fœtal origin, he was at a loss to know how a cure could ever be brought about by a milk diet.

NORTH OF ENGLAND OBSTETRICAL AND GYNÆCOLOGICAL SOCIETY.

Meeting held at Sheffield, November 14th, 1914.

The President, Dr. Willett (Liverpool), in the Chair.

EXHIBITS OF SPECIMENS.

Dr. Hellier (Leeds) exhibited a specimen of cystic sarcoma of the uterus, removed from a multipara, æt. 46. Menstruation had been irregular and infrequent for two years, and the patient had noticed a steadily growing lump in her abdomen for 14 months, until it reached the size of a four-months' pregnancy. The tumour was removed by supra-vaginal hysterectomy, and was then found to be converted into a multilocular cyst filled with yellowish serous fluid.

Dr. Gemmell (Liverpool) exhibited a specimen of fibroids complicating pregnancy, from a primipara, æt. 41. In this case it was considered safer for the patient to have the pregnant uterus removed than wait for Cæsarean section.

Dr. Stookes (Liverpool) exhibited a specimen of fibroids complicating pregnancy, from a primipara, æt. 30; five months' pregnancy. The fibroid had undergone cystic degeneration.

Mr. W. R. Favell (Sheffield) related a case of labour obstructed by fibroid, from a iii.-para, æt. 37. The patient had been in labour for a week, during which time meconium was passed and fœtal movements ceased. The child was dead and presented by the breech. Pan-hysterectomy was performed.

Mr. W. R. Favell (Sheffield) read the notes of a chase of chorion epithelioma, from a patient, æt. 23, whose only pregnancy ended in a two months' abortion in September, 1913. Uterus removed a year later with mass behind it with a history like ectopic gestation. Later a small bleeding growth in vagina removed. Patient now gaining weight.

Mr. Miles H. Phillips (Sheffield) described a case of hydrometra, the size of a seven months' pregnancy, removed from a multipara, æt. 56; married 30 years. The uterus consisted of a thin-walled cyst lined with columnar cells. The cervix was blocked with fibrous tissue.

Mr. W. W. King (Sheffield) read the notes of a case of concealed accidental hæmorrhage, with hæmatoma in broad ligament, treated by Cæsarean hysterectomy.

Mr. W. W. King (Sheffield) related a case of acute hydraminos in a 9-para, æt. 30; six months pregnant. The symptoms were rapid enlargement of uterus with great tenderness and abdominal pain. Delivery was followed by severe post-partum hæmorrhage.

CORRESPONDENCE.

FROM OUR SPECIAL CORRESPONDENTS AT HOME.

SCOTLAND.

BELGIAN DOCTORS' AND PHARMACISTS' RELIEF FUND.

THE following letter, signed by the Presidents of the three Scottish Medical Corporations, has appeared in the press:—"December 14th, 1914. Sir,—May we have the courtesy of your columns to intimate to the medical practitioners and pharmacists of Scotland that steps are being taken for the formation of a Scottish Committee in connection with the 'Belgian Doctors' and Pharmacists' Relief Fund'? According to recent information in our possession, the condition of the Belgian doctors and pharmacists is deplorable, and their need is very great."

EDINBURGH UNIVERSITY GRADUATION.

At the graduation ceremonial on the 18th there were 13 graduates in the degree of M.D., 1 in M.B., C.M., and 33 in M.B., B.Ch. A number of the graduates wore their academic robes over naval and military uniforms. Sir William Turner, addressing the graduates, said that they now took their own place in the national life, and the place they would occupy depended on their own exertions. When he took his degree the medical profession looked for its work and reward in private practice. Matters were very different now, on account ot the great development of preventive measures and the growth of a highly developed public health service. At present military necessities demanded many more doctors than in time of peace, and there was especial need that young graduates who had not settled down in practice should consider that field of work. In the University of Edinburgh they were compiling a roll of those members who had joined the forces, and he was happy to say that the roll now contained 1,500 names. The names included members of the staff, members of the teaching staff, graduates and students—men from all the Faculties. The graduates and students belonging to the Faculty of Medicine numbered 660. In speaking to them on this question, he must not forget to say that medicine had an important civilian side, because the civilian side of the nation was far larger than the combatant. The need for Army and Navy doctors had to some extent affected the wants of the civil population, and where doctors in the country had joined the services there was a risk in some districts of there being no proper medical advice available. This was all in fact that young graduates should bear in mind, and he ventured to say that in this direction many would equally be doing their duty though they did not go to the front.

SIR JOHN STRUTHERS MEMORIAL LECTURE.

The second of these Lectures (founded by the late Sir John Struthers) was delivered in the Hall of the Royal College of Surgeons, Edinburgh, on Wednesday, the 16th inst., by Prof. Symington, Belfast. The subject of the lecture was a study of the relations of the inner surface of the cranial wall to the outer surface of the brain. It was illustrated by numerous specimens, casts, and photographs. The conclusions arrived at were in the main negative, and the whole lecture was a destructive criticism of the work of anthropologists who have tried to draw far-reaching conclusions as to the convolutions of the brain of primitive man from reconstructed skulls. It was shown that it was impossible to infer from the inner surface of the cranium what was the exact nature and dimensions of the underlying convolutions. For example, certain depressions on the skull had been regarded as representing the position of the superior temporal convolution, and their existence or non-existence as proving the existence or non-existence of the faculty of speech. Prof. Symington showed, however, that the alleged relation did not, as a matter of fact, exist, and that the depression in question was related to the second, not the first, temporal convolution. A very hearty vote of thanks was conveyed to the lecturer on the motion of Prof. Sir William Turner, who corroborated and agreed with the general accuracy of Prof. Symington's conclusions.

VENEREAL DISEASES IN THE ARMY.

At the request of the military authorities, the Royal Colleges have arranged for many of their Fellows to deliver short addresses to the troops stationed in Edinburgh and the vicinity on the dangers of venereal diseases. As there are at present in Edinburgh so many troops that the expression "an armed camp" is scarcely an exaggeration, the need for attempting to prevent venereal disease among them is very apparent, and it is hoped that short addresses, which deal with the question from the hygienic standpoint, may be of some service.

NEW LECTURER FOR SHEFFIELD UNIVERSITY.

A Glasgow graduate, Mr. William Macadam, M.A., M.D., B.Sc., D.P.H.Camb., has recently been appointed Lecturer on Public Health in Sheffield University. In taking the degree of B.Sc., Dr. Macadam did so "with special distinction," and he graduated M.B., Ch.B. with honours in 1909, at the same time gaining the Brunton Memorial Prize awarded to the most distinguished graduate in medicine of the year. For his thesis embodying the results of two years' research work in physiology under Prof. Noel Paton, Dr. Macadam received the degree of M.D. with honours in November last. Dr. Macadam has been for some time Senior Assistant Tuberculosis Officer for Sheffield, and he will continue to hold that appointment along with his lectureship in public health.

HOSPITAL ON FRENCH COAST.

Dr. Cullen, who, as noticed in your issue of 18th ult., left the Border village of St. Boswell's to take charge of a Voluntary Aid Detachment in the North of France, has written home. He says they are only a few miles from the front, and can hear the artillery duels going on quite distinctly both day and night. He describes the location of their hospital as being quite a nice place, at Malto, a seaside resort. On the long promenade and excellent sands and beach troops, horse as well as foot, are more or less being constantly trained. The weather was at first bitterly cold, but at the time of his writing was nice and warm during the day. They had had several operations in the hospital, pretty big ones. Their staff is about 26 in number. The people there, says Dr. Cullen, are most polite, and appreciate the work that the various hospitals are doing.

MEDICAL TREATMENT FOR SCHOOL CHILDREN.

The annual report on the medical inspection of school children in Govan parish was submitted on 15th inst. Govan Parish School Board has the largest school population under its charge of all the Scottish parish school boards, and was the first board in Scotland to institute the medical inspection of children. During the year to June 30th, the report states, a whole-time medical staff was instituted to meet the extra demands for medical inspection, and more especially for treatment of defective children. In previous years from 2,500 to 3,000 children were discovered by medical inspection to be in need of treatment, and of that number only some 45 to 50 per cent. actually received treatment. The benefit of the establishment of the treatment clinics was evident from the fact that during the year under review 3,377 children were treated for diseases of the eyes, defective vision, skin diseases, diseases of the ear, nose and throat, and for dental conditions. In addition to the children who attended the clinics, the Board had records to show that at least 618 children received satisfactory treatment by the family medical attendant. The total of examinations for the year was 22,212. The advisability of establishing classes for the partially blind has been clearly demonstrated, and the Board has decided to establish an experimental class for such children.

SUPPLY OF MEDICAL MEN.

Dr. John Barlow, President of the Royal Faculty of Physicians and Surgeons of Glasgow, was in the chair at a meeting of practitioners held in the Faculty Hall on the subject of the effect of the war upon civil medical practice. Dr. Norman Walker, Convener of the Scottish Medical Service Emergency Committee, gave an account of the steps taken to meet the difficulties which have arisen owing to the departure of practitioners summoned to take up military duty. It had been agreed to recommend that the fee offered to a locum tenens taking the work of a practitioner engaged in military duty should not exceed five guineas per week. Arrangements were being made for retired practitioners taking up temporarily vacant practices, especially consulting-room work. Educational authorities were being asked to grant permission to school medical officers to give at least part of their time to general work. Another suggestion was that the visiting staffs of large hospitals and asylums should consent to a reduction of the numbers of their medical residents and clinical assistants. Principal Sir Donald Macalister also spoke and mentioned that there were a thousand fewer medical students all over the country, some students postponing their qualification; so that the dearth caused by the continual drain upon qualified medical men was going to be supplemented by a deficient supply.

LETTERS TO THE EDITOR.

[We do not hold ourselves responsible for the opinions expressed by our Correspondents.]

SERIOUS SHORTAGE OF MEDICAL PRACTITIONERS AND STUDENTS.

To the Editor of The Medical Press and Circular.

Sir,—The Registrars, Deans and other officers of the Schools of Medicine, and of approved scientific institutions throughout the United Kingdom, have been good enough to furnish me with returns showing the number of medical students in attendance this session, as compared with the number in attendance last year. As the statistics have an important bearing on many questions touching the future supply of qualified practitioners for the service of the country, I would ask you to publish the following figures:—

Decrease in Enrolments, October, 1914, as compared with preceding years.—First year students, 56 fewer; second year students, 237 fewer; third year students, 237 fewer; fourth year students, 211 fewer; fifth (and higher) year students, 300 fewer.

The aggregate number of medical students now pursuing their curriculum with a view to qualification is thus about 1,000 smaller than in 1913.

Unless many senior students return to their studies within the next few months, the result will be that the number of young qualified practitioners added yearly to the ranks of the profession will during the next few years be from 200 to 300 less than before. This is equivalent to a diminution of about 25 per cent. of the average number annually added to the *Medical Register* on qualification. The number annually removed from the *Register* by death or otherwise has for some years past been about 800.

In view of the additional losses among senior practitioners due, directly or indirectly, to the war, the prospective diminution of our reserve supply calls for serious consideration.

I am, Sir, yours truly,
Donald MacAlister,
President.

General Council of Medical Education and
Registration of the United Kingdom,
299 Oxford Street, London, W.,
December 19th, 1914.

PROFESSIONAL ETIQUETTE AND THE R.A.M.C.

To the Editor of The Medical Press and Circular.

Sir,—Will you give me your opinion in the next issue of The Medical Press and Circular *re* my action respecting the subjoined case.

On the afternoon of the 13th inst., a motor-car arrived at the infirmary and a messenger was sent to tell me that the officer commanding the troops wished to see me. He informed me that one of his men was suffering from appendicitis, and he wished to know if I would admit him into the hospital, and if I had an operating room. I replied I would admit him with great pleasure, and that I had every means for operating.

He then introduced me to a friend who was with him. There was some talk of how to get the patient to the hospital, his friend suggesting that an ambulance might be formed by aid of two motor-bicycles. I suggested that no better way could be than the use of the large motor-car in which they arrived. This was agreed upon, but before starting for the patient some cases were being taken out of the car which evidently were containing instruments, etc., for operating. I at once informed the friend of the O.C., who is a surgeon (not R.A.M.C.), that I would not allow anyone to operate on my patient or in my hospital.

This rather disconcerted the O.C. and his friend. The former gentleman, after some conversation, told me that —— was appointed Consulting Surgeon for the Troops and a Hon. Col. in R.A.M.C. I replied that did not matter. I would allow no man to operate in the hospital without my consent, and that I was prepared to perform any operation that might be necessary.

I will thank you to give your opinion as to whether my action was right or not under the circumstances, and would also thank any hospital surgeons for their opinions in similar cases. I have frequently operated successfully, both in the hospital and in private houses, upon similar cases.

I am, Sir, yours truly,
N. Mayne,
Surgeon, Longford Co. Infirmary.

Infirmary House, Longford,
December 17th, 1914.

[The above letter arrived shortly before going to press. The Editor hopes to answer next week the issue raised by our correspondent.—Ed. M.P. and C.]

PHYSIOLOGICAL PRINCIPLES IN TREATMENT.

To the Editor of The Medical Press and Circular.

Sir,—I am indebted to your reviewer for his appreciative notice of the third edition of my book on "Physiological Principles in Treatment" (Medical Press, December 16th), but on one point he seems to me to be a little unfair. He complains that I mix up grains and grammes, "as on page 200, where we are told that 250 grains of urea . . . would represent an intake of about 50 grammes of protein." He omits to notice, however that the argument deals with grammes until I quote from Prof. Foxwell, and that I am stating the equivalents in grammes for the figures given by him in grains. Some of the other examples of my "slipshod English" he objects to are obvious misprints, such as "minims" of blood-pressure. Very reprehensible, of course, but perhaps he will be more lenient when I call his attention to the fact that there are two misprints in his brief list of quotations from my pages! I am afraid that authors, like reviewers, being human, are liable to such errors.

I am, Sir, yours truly,
W. Langdon Brown.

60 Welbeck Street,
London, W.,
December 17th, 1914.

OPERATIONS FOR APPENDICITIS.

To the Editor of The Medical Press and Circular.

Sir,—The writer of the letter (Medical Press, December 9th) giving expression to the opinion that deaths from appendicitis were less frequent in pre-operation times than they are now, thanks "Reviewer" for his reply. "Reviewer," however, makes no pretensions that those expressed are in any way wrong, but simply gives his opinion that a physician in these cases is unnecessary. He bases this opinion on his review of Mr. Owen's book on the subject in your journal. I quite agree with him that Mr. Owen's book is an excellent one; it is not for me to say one word against it. But even "Reviewer" would not claim that Mr. Owen's is the last word on the matter, and that nothing further can or will ever be said. Even Mr. Owen would not make such a claim. If "Reviewer" knew from his own personal knowledge what the writer of the letter knows from his own personal practical acquaintance with the subject for a period of over 30 years, he would rather trust his own senses, his eyes, his ears, and the learning at the tips of his fingers, than any number of reviews of any number of books, however good they may be.

When "Reviewer" has more experience and meets a case or two that has gone wrong after operation, when he had expected a brilliant success, he will perhaps wish that he had called in a physician to point out to him some of the objections to operation in the case, or at least to fall back upon and to comfort himself with the thought that nothing had been left undone that could be done.

It would be truly interesting to know your correspondent's experience of the operation: what has been his percentage of recoveries, the percentage that has been relieved by the operation, the proportion still left complaining (and these are not a few), the proportion that would have done at least just as well without operation, the number that were left with hernia in its wake. It would also be interesting to know something about the numerous unpublished cases, those that we hear about but never read about. In the early part of the writer's career a friend made the kindly suggestion that it did a man no good to publish his unsuccessful cases. There are not a few others who seem to be of a like opinion. It must also be borne in mind that a physician would be rather in the position of a judge weighing the arguments of a paid advocate, and that his opinion would not be swayed by any unconscious bias.

I am, Sir, yours truly,

The Writer of the Letter over the Subscription "A Physician."

Liverpool,
December 19th, 1914.

RHINORRHŒA IN A SEPTUAGENARIAN.

To the Editor of The Medical Press and Circular.

Sir,—In answer to your correspondent "Expectant," I would advise a thorough examination of the nose with a view to determine the presence or absence of spurs, ridges, polypi, deviation of septum, and especially "sensitive areas" usually found about the tubercle of the septum and along the inferior turbinated bodies. Any abnormal condition found must be appropriately dealt with. In the case of sensitive areas, these must be treated with the galvanic cautery.

With regard to internal medication, nitrogenous elimination should be promoted, and nervine tonics exhibited such as valerianate of zinc, iron or quinine, or preferably all combined. Atropine, though the most valuable of drugs, should only be administered for a short period—three weeks or so. When successful, this period of administration usually suffices. Of all measures at our disposal, the galvano-cautery seems one of the mast valuable.

I am, Sir, yours truly,
H. Clayton Fox, F.R.C.S.

1 Weymouth Street,
London, W.
December 16th, 1914.

THE PUBLIC PROSECUTOR AND THE SALE OF POISONS.

To the Editor of The Medical Press and Circular.

Sir,—With reference to some observations in your current issue, I should like to state that so far as I am aware there has never been publicly made any statement of the powers and functions of the Public Prosecutor. It seems probable that no one is aware of what these may be save that official himself and the authorities at the Home Office. He has never prosecuted in a single case of improper sale of poisons; he very rarely or never intervenes in cases of adulteration of food, which involve virtually the sale of injurious or poisonous mixtures. In only one case that I am aware of has he ever directed proceedings against a vendor of quack medicines, whether or not containing poisonous ingredients. This was the well-known case tried before Mr. Justice Lawrence at the Lewes Assizes some years ago. The judge stated that this was the first case of the kind taken up by the Public Prosecutor, and expressed the hope that it was only the beginning of a campaign against the abuses then exposed. Although "secret" cures are mostly made up of worthless, inert trash, a considerable proportion contains poisons. One example may be cited in the headache "cures" which, under fanciful names, have an enormous sale. These are made up of poisonous drugs having the power to subdue pain. They must be responsible for much chronic illness and many preventable deaths. Headache is, of course, merely a symptom—often a danger signal pointing to some pathological process, systemic or local, which, taken in an early stage, may be amenable to scientific treatment, but certain to pass into a mortal phase if neglected. The Public Prosecutor would need a vast staff (a large Government department) to deal effectively with the whole mass of crime that now goes unpunished owing to lack of any authority to deal with it. As regards the sale of poisons in any form, covert or open, it would probably be better to make the work compulsory on local governing bodies, perhaps under the guidance of municipal and county medical officers of health. If, as we may hope, the legislation proposed by the Select Committee on Patent Medicines be in due course carried, the sale of poisonous nostrums will be put an end to.

I am, Sir, yours truly,
Henry Sewill.

December 11th, 1914.

OBITUARY.

MR. BERNARD PITTS.

We regret to record the death of Mr. Bernard Pitts, M.A., M.B., M.C.Cantab., F.R.C.S.Eng., Consulting Surgeon to St. Thomas's Hospital, which took place on the 13th inst., after a long illness, æt. 66 years. The deceased, who qualified as M.R.C.S. in 1875, received his education at Cambridge and St. Thomas's Hospital. In 1876 he acted as surgeon during the Turko-Serbian War, and two years later was appointed resident assistant-surgeon to St. Thomas's. From this time onwards until 1908, when failing health compelled him to resign, he served upon the surgical staff of St. Thomas's and also at the Children's Hospital, Great Ormond Street, teaching, lecturing, and doing his hospital work, in which he was indefatigable. He took a keen interest in the well-being of nurses after they had completed their hospital training, and almost from the beginning was an active member of the council of the Nurses' Co-operation. He was a member of the Court of Examiners at the Royal College of Surgeons of England, and an Examiner in Surgery for the Universities of Cambridge and Durham. Mr. Pitts was also Consulting Surgeon to the St. John's Hospital at Twickenham. He attained a high reputation as a bold and skilful operator. His death will be mourned by a large circle of friends and admirers.

BELGIAN MEDICAL MEN
AND PHARMACISTS' RELIEF FUND.

Received at the Irish Office Medical Press and Circular—

	£	s.	d.
Dr. John F. Fagan, Oldcaster ...	1	1	0
Miss L. Rowlette, Stockholm ...	0	10	0

REVIEWS OF BOOKS.

SYPHILOLOGY AND VENEREAL DISEASE. (*a*)

THE first edition of this book appeared in 1906, and it is worthy of note that certain suggestions put forward in that by the author regarding the importance of syphilis as an ætiological factor in many morbid conditions have received strong support by recent serological research. The present third edition has been thoroughly revised and to a great extent rewritten. Syphilology is of such vast importance and raises so many controversial points in regard to the relative value of the various modes of diagnosis and treatment that it would seem impossible that it could be efficiently dealt with in one medium-sized volume. Yet in this book the author has not only thoroughly treated every branch of syphilis, but also has devoted many pages to gonorrhœa and chancroids. Dr. Marshall is to be congratulated, not alone on condensing so much instructive matter in so small a space, but also on presenting it in a clear and interesting manner. He has a deep knowledge of his subject and has spared neither time nor trouble to produce good work. We strongly recommend Dr. Marshall's book to every practitioner, no matter to what branch of the profession he belongs. The admirable arrangement of chapters renders it easy to look up any point without waste of time, and so the book is convenient for reference. It also can be read right through with interest and profit, not alone by the general practitioner, but also by those who make a special study of venereal diseases.

SAVILL'S CLINICAL MEDICINE. (*b*)

AMONG the difficulties with which the student of medicine has to contend when confronted with a medical case, not the least is that of the right interpretation of the symptoms and signs of disease. In other words, the art of making a differential diagnosis from the patient's description of his malady and from the objective signs as determined by physical examination can only be acquired by the diligent comparison of one disease with another similar one, and by carefully weighing the evidence for and against obtained thereby. Works on systematic medicine, in which each disease is considered separately in detail, are necessary for the thorough and academic study of medicine, but they nearly always fail to impress upon the learner the importance of being able to trace the cause of a given malady from a full consideration of its effects as manifested by symptoms. The plan adopted by the late distinguished author of this valuable text-book, the fourth edition of which has been brought up to date by Dr. Agnes Savill, is to approach the subject from the standpoint of symptomatology. Thus in considering the disorders of the intestines the cardinal symptoms are first mentioned, viz., diarrhœa, constipation and abdominal pain. The physical examination necessary for making a correct diagnosis is next described, viz., the examination of the abdomen and the investigation of the fæces. Having ascertained that the patient's symptom is referable to the intestinal canal, the attention of the student is then directed to the numbered paragraphs which follow dealing with each disease separately. Thus a "clinical index of diseases" is available which may be profitably studied for the useful purpose of tracing analogies and of weighing evidence. The general plan of the work is similar to that which obtained in the last edition which appeared only two years ago. The section on affections of the heart has been completely re-cast by Dr. C. E. Zundel, and a capital account is given of auricular flutter and heart-block. Those sections dealing with diseases of the nervous system and the skin are particularly helpful.

Essentially a learner's text-book, Dr. Savill's work is not only a comprehensive treatise on practical medicine, it is also a compendium of clinical laboratory methods and sick-room helps. In short, this "system of clinical medicine" may be relied upon to afford valuable assistance to students and practitioners.

THE CHILD'S DIET. (*a*)

THE second editon of Mr. Curgenven's handbook is an amplification of the first, and as it contains a plain and straightforward account of the proper way to feed a child at all ages it may be welcomed by those on the look out for a suitable guide on the subject. The author is great upon the necessity for reducing the starch and sugar in a child's diet and for supplying more fat, and in support of his theory he has the teachings of modern physiology at his back. There can be little doubt that much harm is done to the digestive organs of infants and young children by over-loading the stomach with carbohydrates. A whole chapter is devoted to the importance of thorough mastication and the care of the teeth. Many useful recipes and diet-tables are given, as well as lists of foods which may and may not be allowed in the commoner varieties of dyspepsia in children. It is a comparatively easy matter to change the diet of a child when the necessity arises, and the little patient will soon become accustomed to his altered fare. The remarks in the chapter upon constipation are most sensible and to the point. In short, we can recommend this small text-book with confidence as being one of the most practical and helpful yet published on the subject of the feeding of children.

LITERARY NOTES.

WE hear that the American Government has placed with Messrs. Churchill a large order for the work on "Operative Surgery" by Professor Edward H. Taylor, of Dublin, recently noticed by us. The work is to be supplied by the Government to surgeons in the United States. We are glad to notice this signal compliment to Irish surgery.

* * *

THE "Calendar of the National University of Ireland" for 1914 (Dublin: Alex. Thom and Co.) is a comprehensive volume. It contains the text of the Irish Universities Act (1908), of the University Charter, and of the various statutes already made, together with full particulars of the staff, and the courses of the University and of the three constituent Colleges.

* * *

VOL. I. of the "Dublin University Calendar" for 1914-15 contains also the ordinary papers set in Arts in the year 1913-14. The present haphazard division of the Calendar into several volumes, the contents of which overlap, is peculiarly inconvenient, and we cannot think what class of readers it is intended to suit. We do not find any evidence of increased accuracy in this volume. For instance, we note that the date of the first election of the present Professor of English Literature is given as 1910, although the chair was held by the late Dr. Dowden until his death in 1913. Inaccuracy seems to be a property specially associated with academic publications.

* * *

WE have received from Messrs. J. and A. Churchill a little brochure, entitled "Remedial Exercises in School and School Clinics," by R. C. Elmslie, M.S., F.R.C.S. The author roughly divides the cases into three classes:—(1) Certain cases—viz., those in which the deformities are purely postural, which can be treated in classes of small size, ten to twelve; (2) cases where individual treatment is necessary; (3) cases with fixed structural deformities in which remedial exercises can only be a part of the treatment, the rest of which must be carried out by

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(*a*) "Syphilology and Venereal Disease." By C. F. Marshall, M.B., M.Sc., F.R.C.S., etc. Demy 8vo. Pp. x. and 465. Third edition. London: Bailliere, Tindall and Cox. 1914. Price 10s. 6d.

(*b*) "A System of Clinical Medicine, dealing with the Diagnosis, Prognosis and Treatment of Disease, for Students and Practitioners." By Thos. Dixon Savill, M.D.Lond. Fourth Edition, thoroughly revised. Pp. xxviii, 948, with 4 plates in colour and 170 illustrations. London: Edward Arnold. 1914. Price 25s. net.

(*a*) "The Child's Diet." By J. Sadler Curgenven, M.R.C.S., L.R.C.P. Second edition. Pp. viii., 115. Crown 8vo. London: H. K. Lewis. 1914. Price 2s. 6d. net.

an orthopædic surgeon. The author deals specifically with kyphosis, and describes how such a case should be investigated and what remedial exercises are likely to prove of benefit. The pamphlet should be of special value to school medical officers.

* * *

We have pleasure in greeting an old acquaintance in the 1915 edition of "Hazell's Annual" (now in its thirtieth year of issue). Some idea of the extraordinary extent and variety of the information compressed into this book may be gathered from the fact that there are now close upon 20,000 index entries. The articles devoted to the "Great War" alone occupy some thirty pages. The graphic description of the incidents which led up to the outbreak and the subsequent march of events, indeed, make of "Hazell's Annual" for 1915 a valuable historic document. Another special article deals with the international treaties and with the main points of international law; while yet another sums up the present and future position of the labour movement to the war. The pressure of war news prevented the daily Press from doing justice to the important meeting of the British Association in Australia. The editor has been fortunate in securing from a special Press representative who accompanied the English visitors a most interesting account of the complete proceedings. The article on the Welsh Church Act should be in the hands of all who take an interest in religious matters; while other special articles of judicial impartiality are those on the Land Question, the Report of the Committee on Local Taxation, and the Royal Commission on the Civil Service. We have no hesitation in saying that "Hazell's Annual" has, with its thirtieth issue, entered on a entirely new career of usefulness as an indispensable work of reference. As a book of general reference on a host of subjects, the busy medical man could not wish for a better book than "Hazell's Annual," whose familiar red covers have graced many consulting-room desks in ages past, and doubtless will for many ages yet to come.

MEDICAL NEWS & PASS LISTS.

The King Edward's Hospital Fund for London.

At a meeting of the Governors and General Council of the King Edward's Hospital Fund held last week for the purpose of awarding grants to hospitals, convalescent homes and sanatoria for the present year, a letter was read from the King expressing His Majesty's hope that "the pressing needs of the voluntary hospitals during the present crisis will not be lost sight of, and that the Fund may receive such support as to be able to increase its annual distribution next year." The sum fixed for distribution among the London hospitals was £133,500, as compared with £151,000 in 1913. In many cases the Fund has increased the grants made to hospitals for purposes of maintainance, which was considered to be the most effective way of helping these institutions in their present circumstances.

Sir John Struthers Lectureship.

Dr. Johnson Symington, F.R.C.S.Ed., F.R.S., Professor of Anatomy, Queen's University, Belfast, delivered the second of the Struthers Lectures in the Hall of the Royal College of Surgeons of Edinburgh, on the 16th instant, the subject being "Observations on the relations of the inner surface of the cranial wall to the outer surface of the brain," illustrated by specimens, casts and photographs.

University of Durham.

At the Convocation holden on Tuesday, December 15th, 1914, the following degrees in the faculty of medicine were conferred:—

Bachelor of Medicine (M.B.).—Arthur C. Freeth, St. Mary's Hospital; Grace W. Pailthorpe, London School of Medicine for Women; Ernest C. G. Parker, College of Medicine, Newcastle-upon-Tyne; Home Playfair-Robertson, St. Bartholomew's Hospital; Sarah L. Rook, College of Medicine, Newcastle-upon-Tyne.

Bachelor of Surgery (B.S.).—John B. Alderson, M.B., College of Medicine, Newcastle-upon-Tyne; Grace W. Pailthorpe; Sarah L. Rook,

University of Cambridge.

At a Congregation held on Saturday last the following degrees were conferred:—

M.D.—H. G. P. Castellain, Trinity.

M.B. and B.C.—S. G. Platts, Caius.

M.B.—F. G. Rose, St. John's.

University of Edinburgh.

The following candidates have passed in Forensic Medicine of the final examination:—A. F. Campbell, James F. M. Campbell, Robert P. Cormack, Herbert J. Davidson, Henry F. Ferguson, Herbert J. Foote, Harold C. Fox, Helen M. Gall, Abani M. Ghosh, Helen G. Hewat, Eric Jamieson, M.A., Tanguturi Janakiramiah, D. Harris Jones, M.A., Norman B. Laughton, Alan R. Laurie, Paul M. Little, Thomas J. Lloyd, William K. M'Intyre, Charles F. Maclachlan, James B. P. M'Laren, Edward S. Mellor, Owen D. Price, Ambat. Ravunni, Cedric Russell, William Shanks, John W. Simpson, George H. Sinclair, Clement I. Stockley, Thordur J. W. Sveinbjornsson, Alexander J. Taylor, Guy M. Torrance, Anthony A. Watson, Ernest W. Wilbourne, Maurice E. Willcock, Peter H. Young.

The following candidates have passed in Public Health of the final examination:—Mirza H. Alikhan, Ahmed Aziz, Hendrik J. Bruwer, A. F. Campbell, James F. M. Campbell, Jerry E. Chow, Andrew Clarke, Robert P. Cormack, Andrew J. Ferguson, M.A., Herbert J. Foote, Abani M. Ghosh, Elie B. Israel, Eric Jamieson, M.A., Tanguturi Janakiramiah, Frederick J. C. Johnstone, D. Harris Jones, M.A., J. Logan Lamond, Thomas J. Lloyd, William K. M'Intyre, Charles F. Maclachlan, James B. P. M'Laren, John Macqueen, Patrick C. MacRae, M.A., William B. Postlethwaite, Pydah V. Ramanamurty, John W. Simpson, George H. Sinclair, Clement I. Stockley, Thordur J. W. Sveinbjornsson, Guy M. Torrance, Anthony A. Watson, John D. Whitfield, Ernest W. Wilbourne, Maurice E. Willcock, Peter H. Young.

The following candidates have passed the final examination for degrees in Medicine and Surgery, M.B., Ch.B.):—Joseph Harold Baird, Mesrovb Barseghian, Etto Gerhard von Bonde Bergh, Donald George Boddie, William Kennedy Chalmers, Urban Jules Cherry, William Anderson Coats, Robert Pairman Cormack, Georgina Elizabeth Davidson, Armand Marcus Duarte, Andrew James Ferguson, M.A., Agnes Ranken Hutchison Greig, Glaister Downer Hamilton, Henry Jackson, M.A., B.Sc., Charles William Lewis, B.A., Harry Lewis, Geo. Alexander Gordon Macdonald, John Macqueen, Edwd. Stanley Mellor, John Joseph Molyneux, Wm. Horner Pallett, Pydah Venkata Ramanamurty, James Ritchie, M.A., M.Sc., Robert Carmichael Rogers, M.A., George Macdonald Scott, M.A., B.Sc., Charles Gunn Skinner, Lockhart Jas. Spence, Thordur John Wilhelm Sveinbjornsson, Patk. Gerald Tuohy, Herbert Maxwell Vickers, Edmund Leigh White, Ernest Wardman Wilbourne, Allan Wotherspoon.

Royal College of Surgeons of Edinburgh—The Fellowship

At a meeting of the College held on Thursday last, the following gentlemen, having passed the requisite examinations between October 5th and 8th, 1914, were admitted Fellows (F.R.C.S.Edin.):—Names in alphabetical order: George J. Adams, M.B., Ch.B.; Howard G Barrie, M.R.C.S.Eng.; Francis J. Browne, M.B., Ch.B.; Herbert E. Clutterbuck, M.D., C.M.; Premananda Das, L.M.S.Calcutta, L.R.C.S.Ed.; John Flynn, L.R.C.S.E. (Triple); Arthur J. Friedlander, M.R.C.S.Eng.; Henry E. Griffiths, M.R.C.S.Eng.; John Kirk, M.B., Ch.B.; Leonard H. McBride, M.D. New Zeal.; Percy P. J. Stewart, M.B., Ch.B.; William G. Thompson, M.D.; Thomas J. Williams, M.D.Iowa, L.R.C.S.Ed.

Army Medical Service.

The following appointments have been made:—Temporary Captains to be temporary Majors: A. E. Johnson, M.B., F.R.C.S., R. Davies-Colley, F.R.C.S. (December 17th). To be temporary Lieutenants: F. H. Storey, M.B. (November 1st); H. H. Whaite, M.B., J. G. Macqueen, M.B., J. M., Clements, M.D., T. I. Bennett, M.B., H. B. Waller, A. T. Ross, M.D., F.R.C.S.Edin., J. F. Gibbons (December 1st); R. D. Forbes, F.R.C.S., R. J. Jones, M.B., R. H. Lucas, A. W. Rattrie, M.B., R. F. Ferris, M.B., E. Majoribanks-Marcar, C. S. Sato, R. B. Roe, F. Garratt, D. D. Logan, M.D., J. E. Myles Brown, M.B., L. S. O'Grady, E. E. Mather, M.B., J. A. Cameron, M.B., F. Barnes, J. Jardine, M.D., F.R.C.S.Edin., R. S. Miller, M.D., W. McFarlane, M.B., J. T. Kirkland, M.B., C. J. Thompson, G. L. Leggat, M.B., H. A. Harris, I. Macdonald, M.B., F.R.C.S.Edin., (December 2nd); M. P. Power, H. H. Prentiss, M.B., J. V. Fiddian, J. A. K. Brayton, L. W. Mortimer, R. W. Clarke, C. L. Williamson, C. E. Dukes, M.B., J. M. Land, W. H. Alderton, B. R. G. Russell, M.D., W. E. Bullock, M.D., H. R. Macintyre, M.D., J. G. MacDougall, M.B. (December 4th); A. Bremner, M.B. (September 26th); J. Hanson, M.B., J. J. Dwyer, W. J. F. Mayne, M.B., M. Douglas, M.D., J. C. Lynmore Day, T. Meagher, M.B., J. D. Cherry, P. J. Maguire, W. E. Adam, M.D. (December 1st); C. V. Mackay, M.D. (December 2nd); H. M. Stephenson, A. L. H. Rackham, W. G. Helsby, N. F. Graham, M.B., A. B. Cluckie, M.B., J. Macarthur, W. H. Brodie, M.B., H. M. Gilmour, H. Caplan, M.B., J. Potter, J. Anderson, M.B. (December 4th); M. H. Whiting, M.B., S. Rowland, M.B., C. King, M.B., D. Duff, F.R.C.S.Edin., F. Hartley, M.B., T. Engleheart Amyot, M.B., C. G. Whorlow, F. W. Hird, M.B., J. R. Rigg, M.B., E. L. Shelton-Jones, W. J. Ronan, M.B., E. J. Stubbs, M.B. (December 6th); L. F. H. Storey, M.B., relinquishes his temporary commission (December 7th); W. S. Gibson to be temporary Quartermaster, with the hon. rank of Lieutenant (December 7th); J. L. Dunlop, M.B. (October 9th); D. E. Crosbie (October 17th); G. W. Rea, M.B. (October 21st); W. S. S. Berry, M.B. (October 29); T. W. G. Hogg, M.B. (November 14th); S. P. Rea, M.B. (November 16th); N. C. Patrick (November 23rd); N. C. Graham, M.B. (November 26th); T. Grimson, M.B. (November 28th); A. H. R. Duncan (December 1st).

A Maharajah's Christmas Gift.

The Maharajah Scindia of Gwalior has presented a Christmas gift of a motor ambulance fleet, consisting of 41 ambulance cars, four cars for officers, five motor lorries and repair wagons, and ten motor cycles, which has been formally accepted by the King on behalf of his soldiers and sailors.

MEDICAL WAR ITEMS.

His Majesty the King has approved of the grant of the Medal for Distinguished Conduct in the Field to the undermentioned men of the R.A.M.C. for acts of gallantry and devotion to duty, whilst serving with the Expeditionary Force:—

Private A. Burns (9939), R.A.M.C.—For conspicuous gallantry in remaining in an evacuated dressing station, tending dangerously wounded men under continuous fire for 48 hours. The position was subsequently recaptured and the wounded men saved.

Private T. Giles (934), No. 6 Field Ambl., R.A.M.C.—Highly commendable conduct on October 26th, when he helped to carry the wounded from collecting station to ambulance wagon over fire-swept ground, several times. Since then he has taken up stretcher squads to remove the wounded from battery in action. Has constantly performed good work.

Private W. J. J. Leach (18722), R.A.M.C.—For exceptionally good work at the dressing stations at Bucy Le Long and Ste. Marguerite, during the bombardment of September 14th to 18th.

Private T. A. Marlborough (669), R.A.M.C., No. 6 Field Amb.—Highly commendable conduct on October 26th, when he helped to carry a wounded officer and men from collecting station to ambulance wagon over fire-swept ground several times. Has performed consistently good work during the campaign.

Private R. Mears (7191), R.A.M.C.—For exceptionally good work at the dressing stations at Bucy Le Long and Ste. Marguerite, during the bombardment of September 14th to 18th.

An officer of the R.A.M.C., now in hospital in France, contributes the following to the *Morning Post*:—

"We have had a good deal of very gruesome work to perform, but the wounded are so grateful for any little thing we can do for them that it, in a measure, takes off the horror of their wounds. The motor ambulance wagons in this campaign have done splendid work, and our task and anxiety have been greatly relieved by this efficient means of evacuation of the wounded towards the base. This war is practically one of machines worked by human beings for their own destruction. When we first came out it seemed very odd to see motor-cars running along the roads and motor-cycles ridden by despatch riders instead of the old-fashioned horse-mounted orderly, but one soon became used to it, and the poor old horse is beginning to look a bit out of place.

"I wonder what all you good folk in England are thinking about this war. I fancy the sight of German cruisers along the Norfolk coast made some people sit up, and about time, too. Personally, I do not think the war will last much longer. I do not think human beings can stand the awful strain of the constant firing of shells. Our soldiers, I think, are magnificent, and deserve well of their country. We see a variety of English newspapers. The news they contain is mostly rubbish, except in the case of one or two of the better class 'dailies.'"

The following letter from a surgeon on board a British hospital ship now off the French coast is also published in the *Morning Post*:—

"We have had a very busy time, but it was quite a treat to have something to do and to feel that one was being useful, though I wish it had been our own people we were dealing with. We left England on Thursday morning in the same gale in which the *Rohilla* was wrecked. We got under way at daybreak, and brought up for the night off Yarmouth, as it was too dangerous to go on, what with the mines and no lights. At daybreak on Friday we were off again, and reached our destination close to the fighting line at about 6 p.m. Owing to the tide we could not get into dock until 11 p.m. Lying outside the harbour, we could hear the reports and see the flashes of big guns—I suppose those of our ships. Numerous aeroplanes were going about. I was up nearly all night. Our first patients were due at five o'clock in the morning, but they did not arrive until a quarter past six. We took on 652 men, including twenty-eight Germans, and about forty officers, getting them all on board in about three and a half hours, which I think was not bad, as about 300 of them could not move, and so had to be hoisted on board. All had bullet, shell, or shrapnel wounds. We finished dressing them at 5 p.m., when I got some breakfast—the first chance during the day. We then started operating on the more serious and urgent cases, gangrenous limbs, etc. Five died on the way down. I think we had every type of French soldier: Turcos, Soudanese, and all. We are supposed to carry 250, so you can imagine the sight below. Luckily it was fine, or we should have been in a nice state! War is indeed a bloody business, but we had too much to do to be sentimental.

"Most of the men were ravenous, having had no food for two or three days. The unfortunate Germans had all been wounded ten days before, and not one of them had had any sort of attention. Some had been shot clean through the chest, and had their clothes sticking to their wounds. What some of them had gone through and yet kept alive was surprising.

"We left the same day and reached this place in due course. It was full of wounded, and we have again been busy bringing them on board and attending to them. I have lost a day somewhere, but as I did not have more than five hours' sleep in forty-eight hours you must excuse it. We expect to take in more patients at daybreak to-morrow."

The following account of his experiences at the front is contributed to the *Chatham News* by Dr. Arthur E. Bullock, a Civil Surgeon on service with the R.A.M.C. attached to the 4th Middlesex Regiment:—

"On Saturday we had a shell right into our headquarters, but fortunately only one man was hurt, and he quite slightly. The other day when I went up to see the Colonel at headquarters I had to take shelter with him and several other officers for over an hour in a large dug-out behind some haystacks, as shells were dropping all round. The other night three of our men went out from our trenches under fire to try and bring in one of the men of another regiment, who was wounded. They were fired on by the Germans, two being killed and the third wounded, but the man was got in safely, and the surviving succourer is being recommended for gallantry. Last week I recommended my medical orderly to the Colonel and Adjutant for promotion. He has now been made a corporal. He has done very good work, and has been very useful to me. One day last week a shell burst right on the house that was being used as a hospital by the Medical Officer of another regiment, tearing an enormous hole in the ground, about ten feet in diameter, and taking a huge piece of the side of the house out. One man was killed and several others very seriously wounded. Fortunately, the M.O. escaped. Last week I had an officer in the 15th Indian Lancers and his Indian trumpeter brought in, wounded by shell; they spent the day with me, till they were taken to the ambulance in the evening. Another day last week a town was being shelled just behind us, and the church was set on fire. Fortunately, only the spire was damaged, but it was very exciting watching it from where we were, and wondering how much of the building was going to be involved. Shells are most terrifying things, though of course we are quite accustomed to them now, but one cannot afford to ignore them. You suddenly hear a peculiar whistling in the air, as of a body travelling at high speed—which, of course, it is—and though you cannot see them, you can judge of the direction the shell is travelling, and more or less the distance away by the character of the sound and its audibility. At the end of the whistle there is a huge crash as the shell bursts, and a cloud of smoke. Some shells burst in the air, the particular point at which they burst being determined by a time fuse attached to them. These are known as shrapnel. You see a white cumulus cloud like a puff of smoke in the air, followed by a flash and a crash. When the shell bursts it lets loose very large quantities of bullets, which scatter in all directions, as well as ragged fragments of iron from the casing of the shell, which latter give most horrible penetrating and lacerating wounds. The shell is on an average 18 inches or more high, with a diamether of 3 to 4 inches. The other kind of shell is known as a high explosive, and differs from the shrapnel in that it explodes on percussion and not in the air, bursting as soon as it hits anything, and blowing up whatever it hits; hence the latter is used to shell buildings. I was in the farm we were using as our headquarters the other day, sitting down talking to the Colonel. when the Germans began to shell the house with this high explosive. Fortunately it did not hit the part of the building we were in, but there was a fearful crash, accompanied by falling bricks, tiles, and broken glass. The concussion is sometimes terrific, and though a house may not actually be hit, the force of a bursting shell close by is sufficient to break the windows. In the instance I mentioned we cleared out at once, and took refuge for half an hour or more in the cellars till the bombardment ceased. You will understand from this that one cannot ignore these engines of destruction or afford to be careless. The safest place if there is much shelling going on is a trench, or dug-out, in the open, because although a shell may not actually strike the room you are in, the missile has great penetrating power, and may go right through a roof, and through the floor below, into the room below, carrying masonry and *débris* with it, which latter may cause serious injury, quite apart from the shell itself. So it is our rule if a building is struck, when we are in it, to clear out at once. If you are walking along, and a shell bursts close by, and no trench or ditch or dug-out is available, the safest thing to do is to fall down flat on one's face. I have not had to do this yet, but have frequently had to take cover in some way or other. To sum up, you will see that one has to walk circumspectly, and to keep one's eyes and ears open.

Three hospitals units of the Scottish Federation of the National Union of Women's Suffrage Societies have now been organised by Dr. Elsie Inglis, staffed entirely by women for service at the front. One of these has already left this country and is accompanied by Miss Ivens, M.S., as chief surgeon, and Dr. Agnes Savill as X-Ray worker.

The Queen Alexandra Hospital Ship, formerly known as the *Paulina*—a 120-ton steam schooner—the gift of which to the British Red Cross Society was recently announced, has now been equipped under the supervision of Sir Frederick Treves, and is ready to begin her beneficent work.

NOTICES TO CORRESPONDENTS, &c.

☞ CORRESPONDENTS requiring a reply in this column are particularly requested to make use of a *Distinctive Signature* or *Initial*, and to avoid the practice of signing themselves "Reader," "Subscriber," "Old Subscriber," etc. Much confusion will be spared by attention to this rule.

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CONTRIBUTORS are kindly requested to send their communications, if resident in England or the Colonies, to the Editor at the London office, 8, Henrietta Street, Strand; if resident in Ireland to the Dublin office, in order to save time in reforwarding from office to office. When sending subscriptions the same rule applies as to office; these should be addressed to the Publisher.

REPRINTS.—Reprints of articles appearing in this JOURNAL can be had at a reduced rate, providing authors give notice to the publisher or printer before the type has been distributed. This should be done when returning proofs.

DR. G. F. C.—Your interesting "Clinical Note" is unavoidably held over until our next issue.

MR. T. JOHNSTON (Newcastle).—Bonds not to practise are seldom required nowadays for resident medical officers of hospitals for the simple reason that they seldom stay long enough in the institution to succeed in establishing a connection with patients in the neighbourhood. Some of the provincial hospitals still require their house surgeons to sign such a document, and there can be no objection to doing so.

M.D., M.R.C.P. (Manchester).—The little book, "Physiological Principles in Treatment," by Dr. W. Langdon-Brown—a third edition of which has just made its appearance—will give you the information you seek in a succinct and practical form.

THE ALBERT KAHN TRAVELLING FELLOWSHIPS.

It is announced that the Trustees of the Albert Kahn Travelling Fellowships, after consultation with the Founder, have decided not to make any election to the Fellowships for the year 1915-16. It is thought that the present time is in many respects unsuitable for the election of candidates, particularly in view of the fact that in the existing circumstances many of the most desirable persons might be debarred from applying for or being elected to Fellowships by reason of their employment on military duties or for some similar reason.

S. J. E. (Edmonton).—Our correspondent will find all she is likely to need in "How to Take Care of The Sick at Home," by W. and S. Rintoul, published at one penny by the Women's Industrial Council, 7, John Street, Adelphi, W.C.

Dr. J. D. M. (St. John's Wood, N.W.)—Your communication arrived as we were going to press. It will be answered privately.

ST. KATHARINE'S HOSPITAL.

We have referred on previous occasions to the position of this ancient charity, founded originally at Tower Hill, and subsequently removed to Regent's Park. In connection with the reformed scheme for administering the funds of the charity, we learn that a house in Brunswick Road, Poplar, has been obtained as a college for the training of health visitors, in accordance with the provisions of the revised scheme.

J. W. R. (Norwich).—The latest official report of the Registrar-General gives the weekly mortality of your city as 13.9 per 1,000 inhabitants. This is an immense improvement and compares most favourably with the rate chronicled at this period in the past.

Dr. J. D. M. (Clifton Hill).—Will appear in our next.

Vacancies.

Royal Cornwall Infirmary, Truro.—House Surgeon. Salary £150 per annum, with rooms, board, and washing. Applications to the Secretary.

Clayton Hospital, Wakefield.—Senior House Surgeon. Salary £150 per annum, with board, lodging, and laundry. Applications to Arthur H. Barnes, Hon. Sec.

Royal Waterloo Hospital for Children and Women, S.E.—Resident Medical Officer. Salary £150 per annum, with board and washing. Applications to the Secretary.

Nottingham General Hospital.—Senior House Physician. Salary £120 per annum, with board, residence and laundry. Applications to the Secretary.

Taunton and Somerset Hospital, Taunton.—Senior House Surgeon. Salary £120 per annum, with board, lodging and laundry. Applications to Reginald A. Goodman, Secretary.

Somerset and Bath Asylum, Cotford, near Taunton.—Assistant Medical Officer. Salary £250 per annum, with furnished apartments, board, fuel, lighting, washing, and attendance. Applications to the Medical Superintendent.

Royal Infirmary, Preston.—Assistant Resident Medical and Surgical Officer. Salary £120 per annum, with board, residence, and laundry. Applications to Walter Davies, Secretary, 5 Winckley Street, Preston.

Kent County Asylum, Maidstone.—Junior Assistant Medical Officer. Salary £250 per annum, with full board, furnished quarters, attendance, coal, gas, and washing. Applications to Medical Superintendent, Asylum, Maidstone.

Warrington Infirmary and Dispensary.—Senior House Surgeon. Salary £200 per annum, with board, apartments, and laundry. Applications to J. H. J. Hampson, Secretary.

Bradford Poor-law Union.—Assistant Resident Medical Officer. Salary £150 per annum, with rations, apartments, and washing. Applications to George M. Crowther, Clerk to the Guardians, Union Offices, 22 Manor Row, Bradford.

Certifying Factory Surgeons.—The Chief Inspector of Factories announces the following vacant appointments:—Hamilton (Lanarkshire), Rathfriland (Co. Down).

Appointments.

Davies-Colley, Eleanor, M.D., B.S.Lond., F.R.C.S.Eng., Surgical Registrar to the Royal Free Hospital.

Johnston, T. B., M.B., Ch.B.Edin., Lecturer and Demonstrator in Anatomy at University College, London.

Kelley, John B., L.R.C.P. & S. Irel., Temporary Medical Officer for the Bleadon District by the Axbridge (Somerset) Board of Guardians.

Lowry, Eleanor, M.B., B.S.Lond., Clinical Assistant to the Throat, Nose, and Ear Department of the Royal Free Hospital.

Martin, Douglas, M.B., Ch.B.Edin., School Medical Officer and Assistant Medical Officer of Health to the Borough of South Shields.

O'Donovan, W. J., M.D.Lond., M.R.C.P.Lond., Acting Assistant Physician to the Royal Free Hospital.

Pickard, Ellen M., M.D., B.S.Lond., Medical Registrar to the Royal Free Hospital.

Births.

Corbett Thompson.—On December 15th, at 8 Gordon-road, Ealing, the wife of Maj. F. S. Corbett Thompson, I.M.S.—a daughter.

Gask.—On December 20th, 1914, at 41 Devonshire Place, W., the wife of George E. Gask, of a son.

Hutton-Attenborough.—On December 19th, at 19 St. George's Square, Stamford, to Dr. and Mrs. E. A. Hutton-Attenborough—a son.

Sambon.—On December 10th, at Woodlawn, Shoot-up-Hill, N.W., the wife of Louis Westenra Sambon—a son.

Sidgwick.—On December 13th, at Ashby Parva Rectory, Lutterworth, the wife of Captain H. C. Sidgwick, R.A.M.C.—a son.

Smith.—On December 18th, at Richmond House, High Street, Manchester, the wife of J. W. Smith, F.R.C.S., of a daughter.

Pitkethly.—On December 11th, at Cricklewood-lane, N.W., the wife of Kenneth Charles James Pitkethly, R.A.M.C. (T.), of a son.

Marriages.

Forbes-Borrie : Downing.—On December 14th, at the Oratory, Brompton, David Forbes-Borrie, M.R.C.S., L.R.C.P., of Basra, Persian Gulf, to Martha Ruth, eldest daughter of the late William J. Downing and Mrs. Downing, of "Medla," Polzeath, Cornwall.

Hall : Warwick.—On December 16th, at St. Mary's Cathedral, Glasgow, James Stewart Hall, M.B., Ch.B., D.P.H., Rothesay, temporary lieutenant, R.A.M.C., to Kate Evelynne, only daughter of the late Frederick Warwick, Malta, and Mrs. Warwick, 42 Kersland Street, Hillhead, Glasgow.

Oliver : Willis.—On December 5th, at St. Barnabas Church, Bexhill-on-Sea, John Dudgeon Oliver, B.A., M.B., B.Ch., elder son of Mr. Charles Henry Oliver, of Cambridge and Prestwick, Ayrshire, to Grace Georgina, daughter of Mr. G. Willis, J.P., and Mrs. Willis, of St. Kitts, Bexhill-on-Sea, and Greenwich.

Deaths.

Flanagan.—On December 18th, at Funchal, Madeira, Terence Woulfe Flanagan, M.B., third son of the late Mr. Justice Woulfe Flanagan, aged 55. R.I.P.

Lawson.—On December 16th, at 1 Park Village, W., Regent's Park, James Ward Lawson, M.R.C.S., L.R.C.P.

Leckie.—On August 28th, at Frameries, near Mons, Belgium, Captain Malcolm Leckie, D.S.O., R.A.M.C., younger surviving son of James Blyth and Selina Leckie, Crowborough, Sussex, and formerly of Blackheath, Kent.

Maxwell.—On December 8th, at Kirkby, Notts, Hugh Samuel Maxwell, L.R.C.P. and S.I., aged 39.

Pitts.—On December 13th, after a long illness, Bernard Pitts, M.A., M.C., Cantab, F.R.C.S.Eng., Consulting Surgeon to St. Thomas's Hospital and also to the Great Ormond Street Hospital for Children, aged 66.

Thompson.—On December 11th, at 90 London Street, Greenwich, William John Thompson, B.A., M.B., B.Ch., R.V.I., formerly of Belfast, aged 48.

OPERATIONS—METROPOLITAN HOSPITALS.

WEDNESDAY.—St. Bartholomew's (1.30 p.m.), University College (2 p.m.), Royal Free (2 p.m.), Middlesex (1.30 p.m.), Charing Cross (3 p.m.), St. Thomas's (2 p.m.), London (2 p.m.), King's College (2 p.m.), St. George's (Ophthalmic, 1 p.m.), St. Mary's (2 p.m.), National Orthopædic (10 a.m.), St. Peter's (2 p.m.), Samaritan (9 30 a.m. and 2.30 p.m.), Gt Ormond Street, (9 30 a m.), Gt. Northern Central (2.30 p.m.), Westminster (2 p.m.), Metropolitan (2.30 p.m.), London Throat (9.30 a.m.), Cancer (2 p.m.), Throat, Golden Square (9.30 a.m.), Guy's (1.30 p.m.).

THURSDAY.—St. Bartholomew's (1.30 p.m.), St. Thomas's (3.30 p.m.), University College 2 p.m.), Charing Cross (3 p.m.), St. George's (1 p m), London (2 p.m , King's College (2 p.m.), Middlesex (1.30 p.m), St. Mary's (2.30 p.m.), Soho Square (2 p.m.), North-West London (2 p.m.), Chelsea (2 p.m.), Great Northern Central (Gynæcological, 2.30 p.m.), Metropolitan (2.30 p.m.), London Throat (9.30 a.m.), St. Mark's (2 p.m.), Samaritan (9.30 a.m. and 2.30 p.m.), Throat, Golden Square (9.30 a.m.), Guy's (1.30 p.m.).

FRIDAY.—London (2 p.m.), St. Bartholomew's (1.30 p.m.), St. Thomas's (3.30 p.m.), Guy's (1.30 p.m.), Middlesex (1.30 p.m.), Charing Cross (3 p.m.), St. George's (1 p.m.), King's College (2 p.m.), St. Mary's (2 p.m.), Ophthalmic (10 a.m.), Cancer (2 p.m.), Chelsea (2 p.m.), Great Northern Central (2.30 p.m), West London (2.30 p.m.), London Throat (9.30 a.m.), Samaritan (9.30 a.m. and 2.30 p m), Throat, Golden Square (9.30 a.m.), City Orthopædic (2.30 p.m.), Soho Square (2 p.m.).

SATURDAY.—Royal Free (9 a.m.), London (2 p.m.), Middlesex (1.30 p.m.), St. Thomas's (2 p.m), University College (9.15 a m.), Charing Cross (2 p.m.), St George's (1 p.m), St. Mary's (1 p.m.) Throat, Golden Square (9.30 a.m.), Guy's (1.30 p.m.).

MONDAY.—London (2 p.m.), St. Bartholomew's (1.30 p.m.), St. Thomas's (3.30 p.m.), St. George's (2 p.m.), St. Mary's (2.35 p.m.), Middlesex (1.30 p.m), Westminster (2 p.m.), Chelsea (2 p.m.) Samaritan (Gynæcological, by Physicians, 2 p.m.), Soho Square (2 p.m.), Royal Orthopædic (2 p.m.), City Orthopædic (4 p.m.), Great Northern Central (2.30 p.m.), West London (2.30 p.m.), London Throat (9.30 a.m.), Royal Free (2 p.m.), Guy's (1.30 p.m.).

TUESDAY.—London (2 p.m.), St. Bartholomew's (1 30 p.m.), St. Thomas's (3.30 p.m.), Guy's (1.30 p.m.), Middlesex (1.30 p.m.), Westminster (2 p.m.), West London (2.30 p.m.), University College (2 p.m.), St. George's (1 p.m.), St. Mary's (1 p.m.), St. Mark's (2.30 p.m.), Cancer (2 p.m.), Metropolitan (2.30 p.m.), London Throat (9.30 a.m.), Royal Ear (3 p.m.), Samaritan (9.30 a.m. and 2.30 p.m. Throat, Golden Square (93.0 a.m.), Soho Square (2 p.m.).

THE MEDICAL PRESS AND CIRCULAR.

"SALUS POPULI SUPREMA LEX"

VOL. CXLIX. WEDNESDAY, DECEMBER 30, 1914. No. 27.

NOTES AND COMMENTS.

Tetanus and Military Surgery.

MUCH scientific interest is attached to the recent discussion of the prophylaxis and treatment of tetanus at the Medical Society of London. The subject was introduced by Captain D. Embleton, R.A.M.C. (T.), who has had a large experience of the malady in question among the wounded soldiers at Netley. Many of his points were clearly of practical value. He pointed out, for instance, various fallacies commonly held with regard to different phases of the infection. One was that because the organism was strictly anaerobic in culture it was necessarily so inside the body. As a matter of fact, the B. tetani would grow in broth along with staphylococcus aureus, although no precautions were taken to exclude oxygen. Another error was that pure carbolic acid applied to a wound acted as a prophylactic. Experimentally, it had been ascertained that 1 in 20 solution was equally efficient, while it did not destroy tissue locally and had no autolytic action which favoured and was essential to the development of the spore. The infection was by means of the spore, which was enormously resistant. The clean spore, however—that is to say, the spore without associated toxin on its surface—was readily disposed of by phagocytic and other defensive agencies of the body. Large doses of antitoxin, given at the earliest possible moment, were advocated, the subcutaneous route recommended by Captain Embleton was the safest and best method of administration. He found that intrathecal injection amounted in the long run to a distribution by the blood stream similar to that obtained intravenously. The latter he did not adopt as it might set up a fatal anaphylactic reaction in the patients who had been treated at some previous time by therapeutic preparations of horse serum. The whole subject is replete with interest, and affords a conspicuous illustration of the dependence of modern medicine and surgery upon laboratory research.

Tetanus in Civil Life.

ONLY last week an inquest was held on a case of death from "lockjaw" in London. The deceased was a harness maker, fifty-eight years of age, who, for the last fourteen years of his life had suffered from ulcerated legs. There was no apparent breach of surface whereby the tetanus organism could have gained an entry other than by way of the ulcers. Medical literature has recorded many cases of a similar nature. An interesting instance was reported a few years ago where a young lady developed tetanus after being vaccinated on the leg. In a case under the writer's care many years ago the patient, a young road sweeper of fine physique, died of tetanus, the only point of entry discoverable in his case being that of an ulcer on the leg. At that time there were practically no remedies beyond those which aimed at symptoms, such as spasm, exhaustion and starvation. In the case of a road sweeper it is easy to understand how the specific bacillus could reach an open sore in the lower leg, but the fact that the B. tetanus is an anaerobic organism inhabiting the soil hardly conforms with the conditions presented by the hard roadways of the streets of London. The fact appears to be, as acutely pointed out by Professor Andrewes at the Medical Society discussion, that the organism is connected with the dung of animals put into the soil rather than with the soil itself. Its presence in London roads suggests that possibly the organism may be deposited there amongst the bowel bacteria of horse droppings—a point that may be commended to the consideration of experts. So far as civilian tetanus is concerned it would be well for private practitioners to bear in mind the desirability of the prompt administration of large doses of anti-tetanic serum.

Bogus Medical Certificates.

THE moral should not be lost of the recent conviction at the Central Criminal Court of the unqualified pretender who, under the name of Harrison, had granted certificates of death and committed perjury by giving evidence at inquests as a medical man. Evidence showed that he had been prosecuted for similar offences fourteen years previously, and, in spite of several terms of penal servitude for bigamy and other offences, he was, nevertheless, successful in obtaining situations as assistant to several medical men. So far did his effrontery carry him that in one case he posed as a Surgeon-General and a baronet. At the trial it was stated by his last employer that Harrison (his real name is John Cubbin) possessed considerable medical knowledge, and he had not the slightest suspicion that the prisoner was not a qualified practitioner. This experience should serve as a warning to all medical men engaging assistants of the necessity of making stringent enquiries into the antecedents of those who apply. The General Medical Council, whose duty it is to preserve the integrity of the *Register*, might with advantage introduce some system of identification and personal records that would enable one to establish the *bonâ fides* of any individual referred to that body. It would not be asking too much of any applicant to satisfy the Council of his right to assume the privileges of medical qualification.

Further Control of the Register Required.

A further question suggests itself in connection with the Harrison case. What means are taken in Courts of Law, Coroners', Criminal, Civil and otherwise, to ensure the fact of legal qualification in a medical witness? The Medical Acts expressly state that only registered medical practitioners are entitled to give such evidence. It may be doubted if a medical man's testimony is ever refused on the ground that, although qualified, he is not registered. Again, a man may be struck off the *Register* and yet permitted to testify simply because an old *Register* has been consulted, if, indeed, the Court officials took that amount of trouble. As a matter of fact, the evidence given by men not on the Register at the time of their appearing as witnesses is pretty certainly worthless from a legal point of view. Why should not the General Medical Council have some simple means of reference available in the law courts as to the good faith of medical witnesses? The Council constitutes the main protection of the public against "false practitioners," a duty that it discharges conscientiously and, on the whole, satisfactorily. The best friends of that important body, however, must admit that there is still some room for improvement.

Attachment of Panel Fees.

A decision of some importance to panel practitioners was decided recently in the High Court of Justice. The executors of a deceased medical man, Dr. O'Driscoll, formerly in practice at Manchester, sold the goodwill of the practice to Mr. W. D. Sweeney, who paid part of the purchase money but was unable to pay the balance, for which judgment was obtained against him by the executors. The plaintiff, in order to satisfy judgment, secured later a conditional order attaching all moneys due from the National Insurance Committee to Mr. Sweeney as a member of the panel. In the High Court Mr. Justice Rowlatt upheld that order. In doing so he distinguished between the case of payments due to a member of the panel and the salaries of officers of the Crown, which are not liable to attachment, and held that as soon as moneys came into the hands of the Committee for distribution to the panel members a debt became due to every medical man who had done the work under contract, and the money then falling due was liable to attachment. This decision enables County and other courts to deal with the incomes of medical men so far as they are derived from panel practice. The distinction that exempts salaried officers of the Crown from a similar liability will appeal to the legal rather than to the lay mind, and constitutes an anomaly that might be removed with advantage to the public interest.

The Royal Hospital of Bethlem.

Some remarks in our last issue on the constitution of the Royal Hospital of Bethlem have brought from Sir George Savage a letter which will be found in our correspondence columns. He courteously explains that the income is derived from landed estates, which have fallen in value, and that leave has been accordingly obtained from the Charity Commissioners to receive a certain number of paying cases at £2 a week. The recent poisoning accident at the Hospital he attributes to the absence at the war of the junior medical officer, who is nominally the apothecary. So far as our original criticism is concerned, we threw no blame upon the medical administration for an occurrence which was purely accidental. The lack of a trained dispenser, however, in an institution of the size and importance of Bethlem suggested that the lay management had fallen somewhat behind the times. Then, again, the fact that the poisonings were not referred to by the *Lancet* and the *British Medical Journal* suggested the desirability of further inquiry in the public interests. Sir George agrees that the Hospital was founded for the benefit of the poor of London. He thinks the London County Council have no part in the Hospital, and that is undoubtedly the case. That body, however, as well as the general ratepayers of London, are concerned closely enough if they have to pay for keeping in London County Council asylums any insane patients who, as City of London inhabitants, should be maintained by trust funds in the hands of the Corporation. In any case, it would be satisfactory were a statement of the financial and other details of lay administration of Bethlem Hospital issued to the public, especially after the assurance of Sir George Savage that such a course would express the wishes of the committee.

LEADING ARTICLES.

A MEDICAL RETROSPECT—1914.

The closing days of the old year afford us yet another opportunity of taking stock of our progress and of reviewing the principal medical events of the past twelve months for the benefit of our readers. Little did we dream, a year ago, that the nations of Europe would be plunged in such a tremendous conflict as that which we have lived to witness. The year 1914 will ever be a memorable one in the annals of history, not only because it marked the beginning of what will henceforth be called "The Great War," but also because of the large and important share in the struggle borne by medical men and women in every class of practice. There is not one who has not been affected in some way as a result of the war. A great number have left their work cheerfully at their country's call, and, in some cases, at no inconsiderable personal loss and inconvenience, have gone to the Front not only as officers in the Royal Naval Medical Service and the Royal Army Medical Corps, but also as medical officers in connection with the various Red Cross Societies of the Allies, Ambulance Corps, Voluntary Aid Detachments, as well as in many other capacities where their special services were needed. Indeed, it is not too much to say that the whole aspect of medical practice has materially changed since the war. Many medical men who, from various causes, have remained in this country have had their work greatly increased, whilst others have suffered considerable losses from the decline of practice. The whole country is experiencing such a shortage of medical men that has never occurred at any previous time, and this diminution was pointed out by Sir Donald MacAlister, K.C.B., President of the General Medical Council, in a communication which appeared in our last issue. The medical profession is proud to be able to help in every possible manner in the present crisis, not only by active service with the Forces, but also by agreeing to provide free treatment to the dependants of our brave soldiers and sailors. Our readers are fully aware, too, of the manner in which we, as a profession. have striven to assist our unfortunate Belgian *confrères* in the time of their distress. As we have previously mentioned in these columns, the war has naturally put a check upon all medical research, yet, we are glad to believe, quite an appreciable amount of good scientific work is still being carried out by skilled investigators in our laboratories, while ordinary hospital work and the training of students has to go on just the same. If we consider that part of the year before war was declared, there are several interesting and important events to record. In chronological order we have the acceptance by the London County Council, in March last, of a tentative scheme for the provision of an ambulance service for London which was virtually identical with that proposed some nine years ago by Sir William Collins. On April 1st the new Mental Deficiency Act came into operation in England and Wales, and the local committees authorised by the Board of Control have already set to work to ascertain what persons within their jurisdiction are defectives and to provide suitable accommodation for them. Ophthalmia neonatorum has become a notifiable disease throughout the country instead of in a few areas only, as was previously the case. The Report on the infectivity of pulmonary tuberculosis made by a Committee of the Royal College of Physicians of London was issued in April, and was designed to allay needless fears among the public as to the supposed contagiosity of consumption. About the same time Madame Victor Henri communicated to the French Academy of Sciences her discovery of the transmutation of certain micro-organisms, the effects of which may be far-reaching in a bacteriological sense. The British Medical Association held a successful meeting at Aberdeen, in July, under the presidency of Sir Alexander Ogston, and during the same week there was the notable Clinical Congress of Surgeons of North America in London, presided over by Dr. J. B. Murphy. The Report of the Select Committee on Patent Medicines was issued in September, and the recommendations of this important document, upon which much comment has been already devoted in the pages of the Medical Press and Circular, may be taken to serve as the basis of future legislation upon the subject when the Government is at liberty to attend to such matters. Last month winessed the inauguration of the National Council for Combating Venereal Diseases, which movement has the hearty support, not only of the members of the Royal Commission, which held many sittings during the year, but also of the whole medical profession. Several interesting medico-legal cases have been tried during the year, one of the most important being the second trial of Stevens *v.* the British Medical Association, with a verdict for the latter. The Local Government Board has been busy during the year, and several important circulars have been issued to the various local authorities dealing with sanitation, latterly with special reference to the presence of large bodies of troops in urban and rural districts. Numerous interesting lectures have been delivered by eminent medical authorities before the Royal Colleges and other public bodies, but space forbids us to mention these individuals. The campaign against tuberculosis and infantile mortality has been marked by considerable activity on the part of the various health authorities throughout the country.

PROFESSIONAL SECRECY.

The question of professional secrecy is one of considerable importance to the medical man. From time immemorial it has been recognised that the medical man is bound under all ordinary circumstances to preserve inviolate any information that has come to him in the course of professional relationship with a patient. Amongst medical men there can be little difference of opinion as to the wisdom and the necessity of this general rule in the interests not only of himself and of his patient, but also of his profession and of the community to which they both belong. When applied to particular cases, however, the rigid enforcement of any such principle might readily lead to results of a kind inimical to the public welfare. The most obvious illustration is that of a murder which has by chance come to the knowledge of a medical man in the discharge of his professional duties. It may be that suspicions aroused in his mind as to the secret administration of poison are confirmed by analysis, and as a consequence of the knowledge thus acquired he perforce becomes cognisant of a criminal act of a most serious nature. If, under such circumstances, he deemed it his duty to regard as sacred the information that had come to him in that particular way, he might be in a fashion condoning murder or assisting a would-be murderer, or possibly a murderer, to escape justice. The commonsense of the overwhelming majority of the medical profession would in such a case agree with that of the public—namely, that rules for general guidance of professional conduct must under particular circumstances be modified to suit the occasion. In other words, it would be the duty of the medical attendant to inform the police of what had come to his knowledge. We take it that few medical men would deny an obligation of that kind in a case of murder or attempted murder. The difficulty arises in determining at what degree of criminality the obligation should cease. Supposing a man calls a doctor up in the night to have a dressing applied to a scalp wound, which is later connected in the mind of the medical man with a burglary or a non-fatal poaching affray, it may be assumed that most medical men would unhesitatingly resent the suggestion that it was part of his duty to report the incident to the administrative law authorities. Next let us turn to the case of illegal operations for abortion, concerning which vexed questions of the particular kind under discussion not infrequently arise. On December 1st Mr. Justice Avory made some highly important observations on the subject of professional secrecy in the course of a charge to the Grand Jury at the Birmingham Assizes. The case was that of Annie Hodgkiss, who had been committed on the coroner's inquisition on a charge of murder. The woman, said the learned judge, clearly died as the result of an illegal operation, but the charge was dismissed in the magistrate's Court. Three medical men in succession attended her, and to one at least she confided the name of the person who committed the act. With the exception of a letter making an appointment there was no evidence against the accused. The fact that none of the medical attendants took steps to secure a dying deposition from the deceased woman prevented the opportunity of acquiring other evidence. Mr. Justice Avory then made the following emphatic statement :—"Under circumstances like those in the present case, I cannot doubt that it is the duty of the medical man to communicate with the police or with the authorities in order that one or other of those steps may be taken for the purpose of assisting the administration of justice. No one would wish to see disturbed the confidential relation which exists, and which must exist, between the medical man and his patient in order that the medical man may properly discharge his duty towards his patient: but there are cases, of which it appears to me that this was one, where the desire to preserve that confidence must be subordinated to the duty which is cast upon every good citizen to assist in the investigation of a serious crime such as that which has been imputed to that woman." We should imagine that the words of the learned judge, one of the soundest lawyers on the bench, would be generally endorsed by the commonsense of the medical profession. Such, however, is not the opinion of the *Lancet*, which, with characteristic assumption of superior judgment, hastens to speak for the medical profession. In its issue of the 19th December, commenting on the trial of the woman Hodgkiss (page 1431), it makes the following editorial comment: "We doubt if there will be any general agreement in the medical profession with Mr. Justice Avory's *remarks*." A matter of this kind is far too important to be dismissed by an off-hand editorial pronouncement of that kind, especially when unsupported by argument. The plain truth seems to be that a few extremists would probably uphold the action of medical men in concealing any professionally acquired knowledge of criminal abortion. Admitting that so far the case may be arguable, we should imagine that the majority of medical men would refuse to become accessory, no matter in however remote and impersonal a degree, to the escape of a criminal abortionist from justice. At any rate, the *Lancet* appears in the passage quoted to be making an assumption that is likely to be offensive, as it is gratuitous, to the minds and the consciences of a large number of the medical practitioners of the United Kingdom. Mr. Justice Avory was careful to repudiate the meaning attributed in a leading book on forensic medicine to some remarks made by him many years ago on the subject. We have rarely seen a more grotesque abuse of editorial omniscience, even in the pages of the *Lancet*, than that which suggests that the majority of medical men are ready to condone grave criminal offences.

CURRENT TOPICS.

The Dublin Castle Hospital.

We are glad to learn that, following on the careful inspection made ten days ago by representatives of the War Office and the British Red Cross Society, the War Office has sanctioned Dublin Castle as a temporary hospital for wounded soldiers. The original intention was to put up 450 beds, but the War Office thinks that 250 will be as much as the building can conveniently accommodate. The inspectors have, it is said, made several suggestions which will be of much help in preparing the premises for use as a hospital. The executive committee is proceeding in its work as rapidly as possible, and it is hoped that within a few weeks the hospital will be ready for occupation. It is to be hoped that the last has been heard of the very disgraceful intrigue which aimed at destroying a useful and patriotic scheme, urged by motives which certainly had nothing to do with the care of our wounded soldiers. It is matter for congratulation that the medical profession has given the project its cordial support. A visiting staff of ten physicians and ten surgeons has been appointed, one physician and one surgeon being nominated by each hospital staff in Dublin. The members of the visiting staff will give their services gratuitously.

Professional Etiquette and the R.A.M.C.

In a letter under the above heading published in our last issue, Dr. Mayne asks us for our opinion on a point of professional etiquette. The letter, being addressed to our London office instead of our Dublin office, reached us too late for consideration last week. Dr. Mayne's case briefly summarised is as follows :—He is sole surgeon to the Longford County Infirmary; on the 13th inst. he was waited on by the officer commanding the troops in his neighbourhood, and a consulting surgeon to the troops, with the rank of Colonel in the R.A.M.C. The commanding officer asked Dr. Mayne to admit to the infirmary a soldier suffering from appendicitis. Dr. Mayne at once consented; on it being made evident that the consulting surgeon intended to perform the operation, Dr. Mayne, while willing to admit the patient and to operate, declined to allow anyone else to operate in his hospital; he does not tell us how the matter was arranged. As we understand it the case is fairly simple. As Dr. Mayne does not mention the point, we assume that the military authorities have not entered into any arrangement with the governing body of his infirmary, which could in any way interfere with his control of the infirmary. If that be so, the consulting surgeon in asking for permission to operate in the infirmary was in the position of any other surgeon who desired to operate on his own patient in a county infirmary. It is obvious that such permission could only be given as a matter of courtesy, and in refusing it the infirmary surgeon was strictly within his rights. We are aware that it is not uncommon for a workhouse medical officer in Ireland as a matter of courtesy in the absence of other accommodation to permit other surgeons to operate on their own patients in the workhouse hospital, and, as far as we know, the surgeon of a county infirmary has similar powers. It is, however, altogether a matter for himself, and while the infirmary surgeon should not feel aggrieved at the request being made, so his visitor has no cause of complaint if the request be refused. Our comment is, of course, entirely based on the case as presented to us by our correspondent.

Ambulance Barges.

The ponderous and generally unattractive-looking vessel which crawls along our canals and waterways and disturbs the small boys bathing is, of all craft, perhaps, the clumsiest. No one except an artist has a good word to say for the barge, if we except those aquatic mansions which are moored along river banks for the enjoyment of the rich and certain magnificently appointed state craft. We should miss the familiar barges on the Thames, half-guided and half-drifting in the dank mists of an evening in late autumn. The much-despised vessel has lately come into prominence in a somewhat different guise, for it is announced that Mr. Douglas Hall, M.P., has offered to procure and equip four ambulance barges for use on the canals and rivers at the Front. The use of these vessels as a means of transport for the wounded has been recently tried with success upon the Seine and it is said to have given great satisfaction to the military and medical authorities. The scheme has received the approval of Sir Arthur Sloggett, K.C.B., Surgeon-General to the British Forces at the Front. The unit of four barges will be placed under the direction and control of the Royal Army Medical Corps, and it is hoped the combined vessels will constitute a floating hospital capable of accommodating two hundred patients. Public assistance is being solicited in order to carry out the scheme successfully, and there appears to be no reason why this novel use of canal boats should not prove most acceptable in France and Flanders.

Poisoning by Aeroplane "Dope."

It is a truism to say that new industries, like new games, are responsible for their own special injuries or diseases. At an inquest held in Marylebone on December 19th some important disclosures were made by the Medical Department of the Home office regarding the toxicity of tetrachlor-ethane, the fumes of a varnish containing which were responsible for a case of acute yellow atrophy of the liver. The patient was a French polisher employed in the aircraft works at Hendon, and part of his duty was that of the varnishing of the wings of aeroplanes with "dope." Some weeks before his death he had complained of headache, an unpleasant taste in the mouth, nausea, and jaundice developed. He was admitted to the Middlesex Hospital, where he died, and at the autopsy the liver was seen to be in a condition of subacute hepatitis and acute yellow atrophy. Death was due to heart failure consequent upon the hepatic degeneration. It was shown that the vapour of tetrachlor-ethane was poisonous to rats, in which animals marked changes in the liver were produced as a result of inhalation of the fumes. If quick drying of the special varnish employed for aeroplanes is desired it is incumbent upon the authorities to see that there is an adequate system of ventilation for getting rid of the fumes. On account of the pressure of work caused by the war, it appears that more of the varnish was used than usual, with a result that more of the vapour hung about. It is sincerely to be hoped that some efficient means of disposing of the fumes may be adopted in future in all places where such dangerous varnishes are used.

New Restriction on the Sale of Laudanum.

After many years of protest, the sale of laudanum, one of the most commonly fatal causes of narcotic poisoning, has been placed under more stringent regulations. Curiously enough, this result has been brought about indirectly through the new edition of the *British Pharmacopœia,* recently issued by the General Medical Council. The strength of the standard tincture of opium has been raised, so that in its new form it passes automatically on January 1st from Schedule II. to Schedule I. of the Poisons Act. Hitherto the chemist has been permitted to sell laudanum in any quantity to a purchaser, provided he dispensed the drug in a bottle of peculiar shape recognisable by touch, and accompanied by the name and address of the vendor on a label. In future he will have to enter particulars of the sale in a poisons-book, and the purchaser will be required to append his signature. These facts were mentioned last week at an inquest held by Dr. F. J. Waldo, the learned Coroner for the City of London. The chemist who sold the laudanum deposed that he had supplied deceased with four or five ounces a week for the past five or six years. In any case, schedule or no schedule, it seems highly undesirable that a deadly drug should be sold under such lax conditions. The General Medical Council may be congratulated upon having rendered a substantial service to the public in the further restriction of the sale of laudanum, a duty which has been so long and so unaccountably neglected by the regular authorities, the Pharmaceutical Society and the Privy Council.

PERSONAL.

Dr. Frederick Mann Williams has been appointed Consulting Medical Officer of Health for Plymouth.

Dr. J. Russell Magee has been appointed Medical Officer to the Londonderry Port Sanitary Authority.

Lieutenant-Colonel R. J. Baker, I.M.S. (ret.), has been appointed Officer Commanding the Indian Field Ambulance Training Corps.

Dr. Frank George Bushnell, M.D., B.S.Lond., L.R.C.P.Lond., M.R.C.S., D.P.H.Cantab, has been appointed Tuberculosis Officer to the Plymouth Borough Council.

Dr. Patrick Edmund Carroll, M.B., B.Ch., N.U.I., has been appointed Assistant Medical Officer of Health and Assistant School Medical Officer by the Walsall Town Council.

Dr. W. I. Escoffery has been awarded the "Duncan Medal" of the London School of Tropical Medicine, which is awarded to the student who obtains the highest aggregate of marks during the session.

Dr. F. M. Sandwith, Chairman of the County of London Branch of the Red Cross League, will deliver the next series of Chadwick Lectures on "War and Disease" at the Royal Society of Arts on January 15th, 22nd and 29th, at 5.15 p.m.

Professor Wyllie, who has lately retired from the Chair of the Practice of Medicine in the University of Edinburgh owing to ill-health, has been elected Consulting Physician to the Edinburgh Royal Infirmary "in grateful recognition of his long, devoted, and valuable services" to that institution.

A LECTURE

ON

THE MARTYRDOM OF MEDICINE.

By SIR WILLIAM J. COLLINS, K.C.V.O., M.S., M.D., B.Sc.Lond., F.R.C.S.Eng.

(*Concluded from page* 643.)

I have only laid before you the stories of two martyrs of medicine, the most tragic, perhaps, that I could have chosen, but, as I said at the beginning, there is ample material for a book of martyrs of no mean proportions, if all the categories I have mentioned be included.

I could tell of Pietro d'Abano, an Italian physician, born in 1250, who narrowly escaped burning by the Holy Inquisition; of Giorgio Blandrata, another Italian physician, successively Catholic, Lutheran, Calvinist and Arian, persecuted by all sects in turn and assassinated in 1590. At Smithfield, in 1551, a Flemish Surgeon, George Van Paris, was burnt for anabaptist and unitarian views. There was Dr. Theodore Mayerne, born at Geneva in 1573, appointed Physician to Henri IV., who was persecuted by the medical faculty of Paris for disputing the authority of Galen, and employing chemical remedies. He was driven out of France, and, coming to this country became Physician successively to James I. and Charles I.

James Drake, of Cambridge, author of "Systems of Anatomy," who died in 1707, was a political physician whose writings on behalf of the Tory party led on two occasions to State prosecutions, and though he escaped unpunished through legal technicalities, the distress his trials occasioned hastened his early death.

The learned Dr. Freind (1675-1728) who wrote the "History of Physic from the Time of Galen to the Sixteenth Century," was imprisoned in the Tower for three years for high treason in connection with what was known as the Bishop's plot. Dr. Richard Mead, himself a political physician who helped the house of Hanover to the throne, secured the release of Freind by refusing to prescribe for Walpole's gout unless his colleague was first liberated from the Tower.

Quite recently we have had to add to the roll the name of Dr. Bombarda, the alienist physician of Lisbon, a leader in the Portuguese revolution two years ago, who fell a victim to assassination at the hands of or at the instigation of the Royalist party. From what I have heard of him he seems to have been a thinker of great power and promise.

John Howard, the philanthropist and prison reformer, though not a physician, was the first to take notes on sanitary questions, and may well be regarded as a martyr in the cause of medicine. His essays presented to Parliament demonstrated the awful neglect which obtained in lazarettos and prisons both at home and abroad. He showed that typhus arose from malhygiene, and in the course of his post-chaise travels and investigations in the South of Russia, he at length contracted this disease and fell a victim to it. As Romilly said of his travels: "What a singular journey. Not to admire the wonders of art and nature, not to visit courts and ape their manners, but to dive into dungeons, to compare the misery of man in different climates, to study the arts of mitigating the torments of mankind! What a contrast might be drawn between the painful labour of this man, and the ostentatious sensibility which turns aside from scenes of misery, and with the mockery of a few barren tears, leaves it to seek comfort in its own distress."

Alas! the toll levied by disease acquired either in the pursuit of our Science or in the practice of our art is heavy indeed. To wit, Lola, of Prague, who died of tetanus from inoculation; Bosso, of Turin, who died of tubercle from inoculation; Helmann and Keffmann-Wellenhof, from glanders; Dr. Nicholas from tetanus; our own Alan Macfadyean, from typhoid and Malta fever, to name only a few. Potter, of University College, a man of great promise and highly esteemed, died young from a dissection wound when demonstrating anatomy. I noticed that in the *British Medical Journal* recently doubt was cast upon the story of the persecution of Dr. John Elliotson, of University College Hospital. I often heard the story from my father, who was his clinical assistant, and whose stethoscope, given to Elliotson by Laennec, is still in my possession. Elliotson was a man of great energy, in many ways in advance of his time. He was the first to practise mediate auscultation in this country and to give clinical demonstrations. He studied phrenology, as everybody seemed to do in the thirties and forties of last century, and he turned his attention to animal magnetism, which had driven Dr. Mesmer from the zenith of fame into obscurity and neglect. It was a time when a rather gross materialism was vouchsafing an explanation of all the gifts of the spirit. Not far from Gower Street, at Edward Irving's Chapel, there was speaking with "unknown tongues" (glossolalia); and some of these neurotics appear to have played upon Elliotson's credulity. He held fashionable séances at his house, and demonstrated animal magnetism and mesmerism in his wards. This was too much for the matter-of-fact authorities of Gower Street, who had only recently endured the accusations of fostering a godless institution, and they forbade a continuance of these demonstrations. Elliotson was forced to resign, was treated with great bitterness by his colleagues, and finally was ostracised by professional orthodoxy. In Cates' "Biographical Dictionary," it is correctly stated that he never accepted the pretensions of spiritualists. He was a man of blameless integrity "bent on the pursuit of truth, fearless of consequences, and persuaded that fresh discovery of truth awaited him in the new field he had entered."

The case of Higginbottom, of Nottingham, ought not to be forgotten in these surroundings. He helped Sir Charles Hastings in founding the British Medical Association, and Richardson has told how, at a Birmingham meeting he was cold-shouldered with scornful ostentation. Hastings afterwards informed Richardson of the reason why. He said: "He is one of the best practitioners in England; a Fellow of the Royal Society, and strictly honourable in all his proceedings; but, unfortunately, he has a 'bee in his bonnet'—he denounces alcohol, and is himself a total abstainer." After Higginbottom had gone there was much side-splitting at the jokes cracked at his expense and he was denounced in language which only apologists for alcohol could command. Richardson, in his "Vita Medica," records: "I had seen a pilgrim father, and I give this memory of him as sincerely as I hope any future pen may write it; but at the moment I thought the man really had a 'bee in his bonnet.' He must be wrong and the majority right, because it was a majority."

Our oracular *Journal* is more just to the memory of another man who suffered unmerited obloquy in his day on behalf of a movement which is at present in the fashionable stage. I refer to Henry MacCormac of Belfast, who preached the gospel of unused air, in the prevention and treatment of tubercle. The *Journal* says: "How his teaching was received by the profession is shown by the fact that when a paper setting forth his views was read before the Medical and Chirurgical Society in 1862, it was received with undisguised contempt. One learned physician characterised it as a 'waste of time,' another sapient person demanded that 'the Society should be protected against the reading of such productions.' The society refused to pass the customary vote of thanks to the author at the conclusion of the sitting. In scholarship MacCormac probably far exceeded most of his courteous audience. He had travelled widely, was familiar with twenty languages, and an authority on comparative philology; besides many medical works, he had written largely on theology, and had translated the 'Meditations of Marcus Aurelius.' He was, in fact, one of those many-sided, broad-brained, unclassifiable men who are ever the object of scorn and ridicule as well as despair, of microscopic minds and conventional insignificance."

The name of MacCormac in this connection recalls that of George Bodington, who had endured similar ridicule and neglect when, in 1840, he taught that "to live and breathe freely the open air without being deterred by wind or weather is one important and essential remedy in arrestingthe progress of pulmonary consumption."

As the Editor of the *Journal* on July 31st, 1909, observed: "It is not only the rejection of the open-air treatment that stands as a reproach against the medical profession. Long before, it had turned its back on the truth, which it had once received, that the disease is communicable," and he concluded by describing the treatment of Bodington and MacCormac as "another illustration of the truth which has often been insisted on in this journal that the superior person is one of the great obstacles to the progress of medicine."

Words of wisdom and words of warning, too, which may serve as a check upon those who, in the case of our own present problems and the questions which divide us to-day, are apt to choose the easier part of shouting with the crowd than standing by the advocate of a cause at the time unpopular but which may hereafter be accepted "when the multitude make virtue of the faith they had denied." Let us, in the words of Lowell, ask ourselves—

"Shall we in our haste to slay
From the tombs of the old prophets steal the funeral lamps away
To light up the martyr-faggots round the prophets of to-day."

What are the lessons to be learnt from these tragedies which I have briefly epitomised? What explanation can be vouchsafed for these crimes which have been committed in the sacred name of medical orthodoxy? How are we to avoid falling into similar errors to-day, and preparing pages of history which future generations will execrate and deplore as we do now the treatment meted out to these martyrs of medicine by men claiming to be animated by the highest motives of professional purity and a burning zeal for God and man within their hearts?

We have in the first place to admit "that there is a spirit of orthodoxy in science as well as in theology, and it can at times be no less intolerant." There is a priestcraft of medicine as well as of religion, and it behoves us to distrust the one as we abhor the other. In *The Times* of February 28th, 1912, I read a letter by Dr. Charlton Bastian, F.R.S., in which he complained that Star Chamber Jurisdiction still remains at the headquarters of Science itself—the Royal Society. He complained that a paper by a Fellow like himself of 40 years' standing had to be submitted to a committee to decide whether such paper should be accepted or not. "Unfortunately," he says, "scientific intolerance as well as Papal intolerance still exists." Sir William Osler, writing on Servetus admits that "next to theology itself the study of medicine has been a great heresy breeder." Dogmas of science and doctrines in medicine are as tenaciously held as they are in the case of the theologian. Herbert Spencer says ("Man State," p. 78): "It is curious how commonly men continue to hold in fact doctrines which they have rejected in name—retaining the substance after they have rejected the form," and cites in evidence the case of Sir Charles Lyell, who united naturalism in geology with supernaturalism in biology, and "only in later life surrendered to the arguments of Mr. Darwin."

In Vol. 1, Chapter 5 (1837) of his well-known "Principles of Geology," Sir Charles rather loftily exposes the follies of the catastrophists and the Mosaic cosmogonists who demurred to the proposition that the causes now operating on the earth's crust were adequate to explain the disturbances and arrangements of the past. Yet in the ninth chapter of the same volume he argues with no less emphasis against the progressive development of organic life upon this globe. He was unwilling to believe that "the author of Nature in the creation and distribution of organic beings followed the same rules formerly as now"; in the succession of quadruped remains he failed to "detect any signs of a progressive development of organisation," and he concluded that the "theory of the successive development of the animal and vegetable world from the simplest to the most perfect forms, rests on a very insecure foundation."

Huxley, in his chapter on "the reception of the 'Origin of Species'" in the "Life and Letters of Charles Darwin" (Vol. 2, p. 185), says:—"Lyell, up to that time (1860) a pillar of the anti-transmutationists, declared himself a Darwinian, though not without putting in a serious caveat." Indeed, Huxley writing retrospectively in 1887 thus catalogues the list as of "evolutionists sans phrase" in 1860:—Asa Gray, Hooker, Lubbock and himself. He, however, feels it necessary to add: "Wallace was far away in the Malay archipelago; but apart from his direct share in the promulgation of the theory of natural selection, no enumeration of the influences at work, at the time I am speaking of, would be complete without the mention of his powerful essay 'On the Law which has Regulated the Introduction of New Species,' which was published in 1855 ("Origin of Species" published in 1859). On reading it afresh, I have been astonished to recollect how small was the impression it made."

Huxley too reminds us in regard to evolution that the supporters of Mr. Darwin in 1860 were numerically extremely insignificant. There is not the slightest doubt that if a general council of the Church scientific had been held at that time, we should have been condemned by an overwhelming majority. And there is as little doubt, if such a council gathered now, the decree would be of an exactly contrary nature. It would indicate a lack of sense, as well as of modesty, to ascribe to the men of that generation less capacity or less honesty than their successors possess. What, then, are the causes which led instructed and fair-judging men of that day to arrive at a judgment so different from that which seems just and fair to those who follow them? That is really one of the most interesting of all questions connected with the history of science, and I shall try to answer it." As a clue to this scientific mystery Huxley, with a frank apology for his egotism, offers his own story of conversion. When we read of his "needless savagery" of attack on the author of "The Vestiges," his disregard of Dr. Grant, of University College, and his opposition to Herbert Spencer, one is inclined to think his list of evolutionists redundant as well as exclusive and to enquire in reference to Huxley himself, *Que le diable allait-il faire dans cette galère?* Thus we see that the doctrine of evolution was at one time poopoohed by the Pontiffs of the Church Scientific whereas in our day it has until lately been regarded almost as sacrosanct as an article of religion or even a dogma of the Church.

I could multiply examples of the mutability of scientific authority which should serve to inculcate humility rather than to promulgate positiveness, and invite a liberality of sentiment rather than an esoteric exclusiveness.

The corpuscular theory of light is a case in point.

Newton advocated it, but Young and Huyghens disputed it and introduced the undulatory theory which has done duty for three-quarters of a century. This wave theory which has been taught as the last word of luminary gospel was in Young's day rejected by the Royal Society, and he himself was severely trounced by Lord Brougham for his sciolism and heresy. A few years ago Sir Joseph Thomson, however, revived the corpuscular theory with an array of mathematical demonstration which challenges the learned and overwhelms the humble. It now seems not unlikely that the wave theory having had its day may in its turn be placed under the ban, or shall we say laid by in lavender with other dogmas once triumphant, now discarded, once the gospel, now anathema.

One more example of *scientific positivism*, that fruitful cause of heresy and martyrdom, I will cite and then conclude. In 1854 at the Göttingen Congress, according to Pruz, among five hundred men of science there assembled, not one could be found who would say a word for the soul, or for vital force, or do otherwise than denounce Rudolph Wagner's book on Faith and Knowledge. Carl Vogt, who held that "man is what he eats," and that the "brain secretes thought as the liver secretes bile," ridiculed poor Wagner to his heart's content in his "creed of a charcoal burner." Liebig resolved vital force into its chemical constituents, and it was resolved that "without phosphorus there is no thought." Littré, a pupil of Comte, with great condescension, analysed the soul and pronounced it to be "the ensemble of functions of encephalic sensibility." That was less than 60 years ago, yet how changed is that which regards itself as the best opinion of to-day. Idealism is in the ascendant and has, if I may be allowed the metaphor, knocked the bottom out of materialism. William James and his school have taught us to look with "eyeless observation on a sense-transcending world," and Henri Bergsen from the Collège de France lectures "*sur la nature de l'âme*," at the Godless University College which aforetime rejected Martineau as a philosopher because he was a parson!

Let us point the moral and adorn the tale.

We need to keep our minds open to truth from whatever quarter, however humble, it may come. To keep the equal mind in things severe. To see man and nature in their totality. The mere fact hunter, the dull laborious man of research with his eye glued to a microscope and his nose stuck into a test tube, ever on hand in our laboratories, is ever resentful of the synthetic thinker who does not fit his calculus, and is often only too apt to scent a heresy or hunt a heretic. The pursuers of little game, the narrow-minded specialists in their zealotry and isolation are sure to be orthodox and consistently conventional.

Again the striking, the incredible, the marvellous, the fine-sounding, the loud-mouthed, will always split the ears of the groundlings and secure hero-worship from the votaries thereof. As of old, Pharpar and Abana are more attractive than the homely waters of the Jordan.

Theories brought from the ends of the earth will secure acceptance when that which is "very nigh in thine heart and in thy mouth" will fail to draw the common herd. As with the first Christian martyr, conspicuous for honesty, wisdom, and a simple faith which worked wonders, it was the inability of the Libertine critics to answer him in dispute no less than his repudiation of their customs dating from Moses that cut his persecutors to the quick, caused them to gnash upon him with their teeth and stone him to death at the feet of the pupil of orthodoxy.

Besides these lessons of *warning* against bigotry and intolerance which made so many martyrs of medicine, which drove Semmelweis to the mad-house and Servetus to the stake, let us also take lessons of *courage* and *comfort*, let us recall from time to time "those stalwart old iconoclasts unconvinced by stake or gibbet that all virtue was the past's." Let us honour their memory, reverence their spirit, emulate their constancy and reflect with the poet:—

Oft as we run the weary way
That leads through shadows unto day,
  With trials sore amazed,
Deeming our struggles are unknown;
Our battle joined and fought alone,
  Our victory unpraised,

In hope and faith we yet may trace
The witnesses who watch our race;
  Beyond our senses' ken
The mighty cloud of all who died
With faithful rapture, humble pride,
  For love of God or men.

With patience, then, we run the race,
With joy and confidence and grace;
  Our message to defend,
Enduring cross, despising shame,
Enkindled with the battle flame,
  And faithful to the end.

Note.—*A Clinical Lecture by a well-known teacher appears in each number of this Journal. The lecture for next week will be by Sir G. H. Savage, M.D., F.R.C.P.Lond., Consulting Physician to Guy's Hospital; Examiner in Mental Pathology, University of London. Subject: "Jealousy as a Cause and as a Symptom of Insanity."*

ORIGINAL PAPERS.

THE FOUR COMMON TYPES OF HEART DISEASE:

AN ANALYSIS OF SIX HUNDRED CASES (*a*).

By RICHARD C. CABOT, M.D.,

Professor of Medicine in Harvard University, Physician to the General Hospital, Boston.

To classify cases of disease according to their pathogenic agent or process, and not solely by naming the region affected or the function disturbed, is the ideal of scientific progress in medicine. But until the last decade we have made little advance in this direction as regards the diseases which gravely disturb heart function. Thus we still find in standard text-books a section devoted to "Mitral regurgitation," its diagnosis, prognosis and treatment, although mitral regurgitation is almost as vague a phrase as "spinal paralysis" or "brain fever." Just as a "spinal paralysis" may be due to trauma, to the tubercle bacillus, to the *Spirochæta pallida*, to the organism of poliomyelitis or to cancer, so "mitral regurgitation" is only a symptom caused by the action of streptococci, by the degenerative lesions of arteriosclerosis, by the muscle-tiring resistance of nephritic hypertension and probably by many other causes. It probably contributes its mite to the downfall of cases of pernicious anæmia, typhoid fever and puerperal sepsis. Hence there can be no rational prognosis or treatment of mitral regurgitation but only of the various underlying diseases in which this leak is a symptom.

A similar criticism applies to all diagnoses of "myocarditis." The micro-organism of rheumatism and of syphilis, the ravages of arterial disease and perhaps many other causes may produce the lesions of chronic fibrous myocarditis, with or without recognisable symptoms. A diagnosis of myocarditis is like a diagnosis of "ulcer"; it calls for an ætiologic qualification, such as syphilitic or tuberculous.

The matter has many practical aspects. A sane

(*a*) Read before the Section on Practice of Medicine at the Sixty-fifth Annual Session of the American Medical Association. 1914.

prognosis and treatment of "aortic regurgitation," for example, depends on knowing or guessing what disease has produced it. Even physical diagnosis may have to await an intelligent interpretation of its results until we make up our minds what micro-organism is at work, in the heart, as well as elsewhere in the body. When we hear a low, rumbling presystolic murmur at the heart's apex and an early high-pitched diastolic along the left sternal margin, our conclusions about the mitral valve depend on our answer to the question, "Is syphilis or 'rheumatism' at work here?" If the former, then the mitral valve is probably sound; if the latter, probably diseased.

Four relatively new tests have now made it possible—as I think—to reclassify cardiac lesions more satisfactorily: the Wassermann reaction, the "red test" (*a*) of renal funotion, the measurement of blood-pressure and the Roentgenography of the chest. When auscultation, percussion and the older methods of urinary examination leave us in the lurch, the four diagnostic methods just mentioned can often guide us aright.

With the help of these methods I have attempted a classification of 600 recent hospital cases in which a failing heart was the most notable feature. The results are shown in the accompanying table.

CLASSIFICATION OF CASES WITH FAILING HEART.

	Male	Female	Total
1. Rheumatic	108	170	278
2. Syphilitic	52	22	74
3. Arteriosclerotic	53	40	93
4. Nephritic	59	58	117
	272	290	562 (93% of all)
Goitre heart	3	5	8
Doubtful cases	19	11	30
	294	306	38 (7% of all)
Total			600

The Rheumatic Type.

Under "rheumatic" are grouped the cases of weakened heart, adherent pericardium and valvular disease associated with (*a*) acute non-gonorrheal polyarthritis ("rheumatic fever"); (*b*) chorea (of Sydenham's type); (*c*) acute tonsillitis, and (*d*) "primary endocarditis" with negative Wassermann reaction, especially when the cardiac symptoms followed these diseases during the patient's youth. In my opinion it has been demonstrated by the converging results of English, German and American work as the best working hypothesis that a streptococcus is the exciting agent of acute "rheumatism," chorea, endocarditis and tonsillitis (*b*). This streptococcus in the joints produces acute rheumatism, in the brain chorea, in the heart endocarditis, myocarditis and pericarditis. It may attack the heart first and later the joints. Then our old terminology would make it appear that endocarditis is the "cause" of rheumatism. It may attack first the brain and heart, appearing later in the tonsillar or peritonsillar tissue. It may attack the heart and kidney simultaneously, so that we find true cardiac and renal disease from an identical organism, as Libman and others have maintained.

This form of streptococcosis is essentially a disease of youth, both in man and in the animal experiments of Rosenow. In 60 per cent. of the cases here analysed the disease began (usually in the joints) before the twenty-second year. The patient rarely dies a mechanical or heart-death, usually an infectious death, by terminal, progressive or relapsing infection. Women are affected more often than men—nearly twice as often in these statistics.

The mitral valve, the pericardium and the myocardium are the favourite seats of bacterial invasion, the other valves much less often. In the valves this form of streptococcosis produces usually stenosis with more or less leakage—but almost never leakage alone. In other words, mitral stenosis is *the* rheumatic (or streptococcic) valve lesion, although it is combined with aortic stenosis in a relatively small percentage of cases. It rarely produces aortic stenosis without a severer stenotic lesion of the mitral. It seldom, if ever, produces severe symptoms or death by leakage (mitral, aortic or both) alone, though it often produces systolic apical murmurs alone.

On the other hand, it seems probable that stenosis at the mitral or aortic valves involves regurgitation as well in practically every case.

When a cardiac streptococcosis occurs in its most virulent and intractable forms, we call it "malignant," "ulcerative," "septic" or "slow" (endocarditis lenta) and we find in the blood (according to Rosenow) a streptococcus culturally distinguishable from the organism of the milder cases. Nevertheless, I have here included all such cases in the "rheumatic" group of my table.

If the patient survives the second decade of life his smouldering, often recrudescent, cardiac infection may die out, leaving a serviceable heart, despite some narrowing at mitral or even at the mitral and aortic valves. Such cases carry a good prognosis and are often compatible with twenty, thirty or forty years of hard work.

Syphilitic Heart-Disease.

Most cases of "causeless" aortic regurgitation appearing in men between 20 and 40 without "rheumatic" history have a positive Wassermann reaction and may be considered due to syphilitic aortitis with or without aneurysm. In negroes and south Italians we find a great deal of this type of heart-disease because of the prevalence of syphilis among them.

I have included twenty-four such cases, together with the eighteen aneurysms, among the syphilitic group in my table. To these I have added a group of thirty-two failing hearts, with or without evidence of valve lesions, without rheumatic history, without evidence of nephritis or arteriosclerosis, but with a positive Wassermann reaction. The permeation of the congenital syphilitic's myocardium with spirochætes (as shown by Warthin and others) makes it probable that in adults as well, many cases of myocarditis are due to syphilis. Probably a more searching study would result in transferring some cases from the arteriosclerotic to the syphilitic column in my table.

Arteriosclerotic Heart-Disease.

Under "arteriosclerotic" are included the cases of weakened heart in elderly persons with sclerotic peripheral arteries and hypertension, often with angina pectoris, occasionally with cerebral or peripheral symptoms of the arteriosclerotic type, and always with negative Wassermann reactions.

(*a*) Phenolsulphonephthalein.

(*b*) As well as certain cases of pleuritis, pericarditis, peritonitis, iritis, meningitis, pneumonia and nephritis.

I do not attempt to decide the question whether any of the hearts of this group are weakened solely as a result of renal arteriosclerosis or whether generalised arteriosclerosis works part or all the mischief. In either case arterial disease is the cause. If anæmia is present these cases more often belong in the next group.

With further knowledge this arteriosclerotic group could probably be subdivided into the plumbic cases, those of infectious origin, etc. The heart itself shows enlargement, weakness, often arrhythmia of gallop rhythm. Angina pectoris and the cerebral and peripheral evidences of arteriosclerosis are often present. Such patients often live many years in comparative comfort. On the other hand, they may die suddenly of coronary stenosis or cerebral hemorrhage.

NEPHRITIC (OR NEPHROGENIC) HEART-DISEASE.

Volhard and some other modern authors would designate many of my "arteriosclerotic" cases as "benign chronic nephritis." But it seems to me more convenient to confine the term "nephritic or nephrogenic heart-disease" to the cases of weakened and enlarged heart apparently resulting from the hypertension of glomerulonephritis.

Such cases are associated with urinary anomalies more marked than those seen in the arteriosclerotic group. The hyposthenuria, the nocturia, albuminuria, cylindruria and especially the functional weakness with the "red test" are very marked. The response to cardiac stimulants and to drugs like theobromin sodium salicylate is feeble. Demonstrable arteriosclerosis of the peripheral vessels is slight or absent. Uræmic manifestations, retinitis and anæmia are relatively common. The patients of this group average 36 years of age, those of the arteriosclerotic group 59 years of age.

Cases with positive Wassermann reaction or marked history of rheumatism are excluded. The heart itself shows enlargement, an accentuated aortic second sound, sometimes a systolic murmur at the apex or base, often gallop-rhythm and valvular first sound, occasionally an absolute arrhythmia. The usual prognosis is for not more than one or two years of life.

Most of the cases of "senile heart," "cardiorenal" disease, "myocarditis" and myocardial weakness have been grouped with the arteriosclerotic cases, some with the nephritic, a few with the syphilitic.

The table shows that 93 per cent. of 600 successive and unselected cases of failing heart can be pushed into one of these four groups. How much violence was used in the grouping process I shall try to suggest later on.

THE EXCLUSIONS.

Outside these four groups fall (*a*) the "goitre hearts," that is those showing no cause for weakness except a thyreogenic intoxication (exophthalmic goitre); (*b*) the "obese hearts," manifesting decompensation in very fat persons without streptococcic (rheumatic) or syphilitic infection, or arteriosclerosis, nephritis or thyreotoxicosis; (*c*) certain cases of myocardial weakness without any known cause. Had any of these occurred in athletes or ex-athletes they might have been called "athletes' hearts." But they did not.

LIMITATIONS OF THIS CLASSIFICATION.

One patient had a history of syphilis, a positive Wassermann and an aortic regurgitation; also a "rheumatic history," a continued fever, murmurs suggesting a mitral lesion and a pure culture of atypical streptococci in the urine. He seems to belong in two classes at once (Classes 1 and 2).

Three patients (two with necropsy) had a "rheumatic" heart and type of history; also a glomerulonephritis. There is good reason to believe that the same organism caused the two lesions. I have, therefore, classed these cases in the "rheumatic" (streptococcic) group despite the presence of a glomerulonephritis.

There are good grounds for holding that arteriosclerosis and glomerulonephritis may act conjointly and simultaneously to weaken the patient's heart. In my table the few cases which seemed to me of this type were grouped among the "doubtful cases."

Many believe that syphilis may cause arteriosclerosis. If so, Groups 2 and 3 of my table would in part coalesce. The "syphilitics" of this table are the relatively active cases with positive Wassermann.

SUMMARY AND CONCLUSIONS.

1. Ninety-three per cent. of 600 recent hospital cases of failing heart have been found to group themselves without much resistance into four classes: rheumatic (streptococcic), syphilitic, arteriosclerotic and nephritic.

2. About 5 per cent. cannot easily be thus classified. The remaining 2 per cent. are "goitre" hearts.

3. In the 278 rheumatic cases females predominate: 170, or 61 per cent., to 108 males, or 39 per cent.

4. Sixty per cent. of these rheumatic cases began before the twenty-second year. The typical rheumatic heart patient is therefore a young girl.

5. Of the seventy-four syphilitic cases 70 per cent. were in men; only 30 per cent. in women. The typical syphilitic heart patient is a middle-aged man (average age 47), with aortic regurgitation and no rheumatic history.

6. The ninety-three arteriosclerosis patients averaged 59 years of age. The 117 glomerulonephritic patients averaged 36 years. The arteriosclerotics are therefore twenty-three years older than the nephritic. The sexes are about equally represented in the two groups.

7. Diagnosis, prognosis and treatment are put on a more rational basis if we give up the terms "myocarditis," "cardiorenal" disease, "aortic regurgitation," "mitral regurgitation" or qualify them with an adjective like "syphilitic," "rheumatic" or "arteriosclerotic."

8. Practically all the stenoses belong in the rheumatic group.

A CASE OF BILATERAL OPTIC NEURITIS DUE TO SPHENOIDAL SINUSITIS PRESENTING SEVERAL FEATURES OF INTEREST. (*a*)

By A. ALISON BRADBURNE, F.R.C.S.Ed.,
Manchester

THE addition of yet another case to the long record of eye affections due to sinusitis is excusable on this occasion, by reason of the following:—Its method of onset, the implication of the abducens nerve, and its fortunate termination. As

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(*a*) A paper read before the Liverpool Medical Society.

far as one's researches have extended the last two features seem not to have been recorded before.

The patient was an apparently healthy married lady of twenty-seven, with one healthy child and no history of miscarriages or other evidences of specific taint.

When she consulted me in January, 1914, she gave a history of twelve months' headaches, the pain being situate chiefly at the back of the head and neck. About Christmas time she had suffered from a severe cold in the head, accompanied by a fairly copious nasal discharge, but it had cleared up without resort to medical advice. Recently she had experienced a muddled feeling when gazing into the distance, and a tendency to double vision at times was noticed when looking to either side. She had no trouble in reading or sewing, and, except for the former complaint, was in excellent health.

Examination revealed a slight weakness of abduction of the left externus muscle, and the vision in this eye was 5/9 and in the fellow eye 5/5. The right optic disc and fundus were normal, whilst the only change detectable in the left was a slight suspicious blurring of the nasal border and some hyperæmia. The pupils were equal with normal reactions. No tenderness on pressure; no ptosis or proptosis. The left visual field showed a slight peripheral contraction and a little enlargement of the blind spot, normal field for red. The patient was ordered a tonic, and asked to report again in a week's time. When next seen diplopia had become very troublesome, although no actual squint was discernible. The fundus changes were unaltered. Seen again three weeks after the first visit, neuritis was plainly evident in the left nerve, although the vision had improved to 5/5. As time passed the whole disc became blurred, the vessels emerging from a cloud. The other disc became slightly affected in about five weeks from the onset, attacking mainly the upper edge of the disc and gradually spreading along the nasal border, the temporal and lower margins being unaltered during the whole course of the affection. At this stage the patient complained of intense neuralgic pains affecting both sides of the face and back of neck, and, as she possessed a decaying molar, its extraction was advised and carried out.

In March eight degrees of deviation of the abductor was present, which reached its maximum of fourteen degrees a few weeks later. The condition of the left disc became gradually aggravated, but at no time was the central lumen closed. A broad patch of exudation appeared at the upper and inner section, where there was also a small hæmorrhage. The vision in both eyes remained normal (5/5 and J.1). No choroiditis or K.P. present.

The suggestion had been made at the commencement of the illness that the seat of the mischief was in all probability located in the nose, and she accordingly agreed to consult Dr. Courtenay Yorke, of Rodney Street, Liverpool, who furnished the following report: "At Christmas, 1913, the patient had severe rhinitis with purulent discharge. As the eye changes appeared immediately afterwards, it was thought feasible that they were dependent on some inflammatory condition in the posterior ethmoidal labyrinth or in the sphenoidal sinus. The absence of pus in the nose was not opposed to this idea, as a closed empyema of one of the posterior ethmoidal cells, with inflammatory extension to the cellular tissues of the orbit would anatomically most adequately explain all the ocular changes. A symptom suggestive of sphenoidal sinus suppuration was occipital headache. On examination, the nose was found to be apparently quite healthy. The septum was in the middle line, and no trace of pus was seen. The naso-pharynx was normal. On transillumination both sides were clear. No tenderness was observed over any of the sinuses accessible to the finger." And yet, as the sequel proves, the sphenoidal sinus was undoubtedly choked with matter, a feature which the many recorded cases show is particularly common, and, in fact, to be expected.

At the consultation cocaine and adrenalin tampons were applied to the body of the sphenoid, with the view of attempting operative measures. This manœuvre became impossible, on account of the patient's apprehensiveness and nervousness. It was, therefore, decided to keep the patient under careful observation, and if necessary at a later date to explore the posterior ethmoidal cells and sphenoidal sinuses.

The following day the patient suffered from what she termed an intense "cold in the head," accompanied by a copious, thick yellowish discharge. This continued for over a week, and caused the patient intense discomfort, and when seen again the neuritis was plainly subsiding. Five weeks later the diplopia suddenly ceased to trouble her, but slow, jerky nystagmus on extreme abduction could be elicited. The condition of the discs was improving, and the central vision still normal. When the disease was at its height slight ptosis of the left upper lid manifested itself, and this feature, it was particularly noticed, became more marked when the patient was apprehensive or suffering from mental excitement—as, for instance, when the idea of operative measures was suggested to her at the consultation.

She was last seen in October, and complained then of occasional attacks of blurred vision—more marked on getting out of bed in the morning or when entering a brightly lighted room. She experienced no difficulty in near work, or moving about abroad or in her home. She still suffers at times from pain down the right side of the neck, aggravated when the head turns suddenly to the right. Has no diplopia, but occasionally stumbles when walking.

The eyes show equal, but dilated pupils, which react feebly to light, but fairly to accommodation and convergence. Slight jerky nystagmus can still be elicited, otherwise the ocular movements are free and full, and there is no squint and no ptosis. The left disc is still hyperæmic, its whole edge blurred but definable; exudation covers the vessels in places, but does not seem to cause any sudden constriction, although as a whole the vessels seem to be narrowed. A lesser marked condition is present in the right disc, and in addition are two patches of exudation, one above to the nasal side and one below. The vision in both eyes is 5/5 and J.1, the visual fields are contracted, but the central scotoma remains about the same size—viz., 10 deg. in right eye and 5 deg. in left eye.

This case presents several features of interest, and some problems the solution of which can only be surmised. When first seen the only objective signs were the slight weakness of the left abductor and the suspicious neuritis of the left disc. The length of time which elapsed before the neuritis became definitely evident on the face of the disc undoubtedly pointed to a lesion affecting the nerve a long way behind the eye-ball. This was further confirmed by the absence of pain or tenderness on pressure over the eye-ball and the primary implication of the sixth nerve. The implication of this nerve still further assisted the localisation of the seat of mischief, for such could scarcely be anywhere else than at its situation on the body of the sphenoid, where it traverses the cavernous sinus alongside the carotid artery. By direct extension of the mischief forwards the implication of the optic nervo can be explained, for, as pointed out by O'Nodi in his investigations on the relations of the optic sulcus, this canal can be formed entirely by the bone forming the sphenoidal sinus. It is possible that in this case the sixth nerve may have had an abnormal relationship to the carotid artery in the cavernous sinus, and, instead of lying external to the artery, might have lain on its mesial aspect in contact with the bone. This theory would explain why the occurrence of abducens paresis has not been recorded before. Again, the localising feature of this paresis enables one to put out of court any liability of the posterior ethmoidal cells, which, as is well known, are a frequent cause of optic neuritis.

A more difficult symptom to account for is the complaint of occipital pain, which is, I believe, almost pathognomonic of sphenoidal sinus trouble. In my humble opinion, such may be attributable to implication of the sympathetic plexus around the carotid artery. That this was affected is proved by the character of the ptosis. The drooping of the lid was clearly not due to levator paresis, nor would it be reasonable to expect to find the frontal division of the third nerve implicated without at the same time the fourth nerve being involved. The ptosis in this case was due to weakness of the bundle of non-striated muscle fibres running between the striated fibres of the levator, along the under surface of which they run to be inserted in the upper margin of the tarsus, a muscle discovered by and named after Heinrich Müller, and innervated by the sympathetic. That the sympathetic was affected is confirmed by the aggravation of the ptosis under mental excitement; despite the fact that the other classical text-book (*sic*) symptoms were not at the same time present.

The termination of the case is not without interest. At the first consultation one had a very strong suspicion where the mischief lay, due in no small degree to the history of rhinitis, which had suddenly ceased. When, then, a fairly lengthened interval followed before the neuritis became established, the diagnosis became practically settled, and I ventured to express the opinion that the recurrence of the original cold in the head would be a blessing in disguise. The sequel proved the truth of the surmise, although one scarcely expected it would prove as beneficial as it turned out.

JEJUNOSTOMY FOR MALIGNANT STRICTURE OF THE ŒSOPHAGUS.

By DOUGLAS DOUGLAS-CRAWFORD, F.R.C.S.,
Hon. Surgeon, the Royal Southern Hospital.

The operation of jejunostomy has been advocated for various conditions by Maydl, Neumann, Mayo, and others, but it was not until reading a paper by Mayo Robson in January, 1912, that I fully appreciated its possibilities as an alternative for gastrostomy.

Mayo Robson thinks most favourably of the operation, and would extend its field of usefulness much further perhaps than would be generally accepted. In the list of conditions for which he thinks this operation suitable no mention is made of malignant stricture of the œsophagus. The omission may be accidental, or else he may be quite satisfied with the results of gastrostomy. For some years I have had serious doubts as to whether the operation of gastrostomy prolonged life; in some few cases it may have done so, but often one felt that operation had hastened the end, and in the past two or three years I have declined to operate unless specially urged thereto by patient and relatives.

Malignant stricture of the œsophagus runs a fairly rapid course, a year or eighteen months being the average duration, but death may occur within a few months from the onset of the disease.

One case I can recall—that of an elderly man—in whom the first difficulty of swallowing manifested itself only eight weeks before his death, which took place on the morning of the day upon which I had intended to do a gastrostomy.

Within the past two years I have had seven cases of stricture of the œsophagus under my care—six men and one woman. Of these, five men submitted to operation, the oldest being 72 years of age and the youngest 44. In three of these the stricture was situated at the lower end of the œsophagus, just above the diaphragm, and in the other two opposite the seventh dorsal vertebra.

The longest history of inability to swallow solids was given as twelve months, the shortest eight weeks, and all had had regurgitation of fluids very shortly after swallowing for some days before operation.

Perhaps the most important point in the operation of jejunostomy, as in gastrostomy, is the avoidance of leakage from the fistulous opening. In my first case, owing to faulty *technique*, leakage of intestinal contents took place, leading to considerable damage to practically the whole of the skin of the abdomen, and causing one some anxiety for a few days. In subsequent operations I took the precaution to cover the abdomen with a thin layer of gauze, fixing it to the skin with flexile collodion. This procedure might prove useful if one was not sure of one's *technique*, but fortunately in the rest of my cases no leakage occurred. If the catheter be kept out of the fistula for a day, there is often difficulty in reintroducing it; and in one case I learned five months afterwards that the fistula had completely closed.

The different methods of performing this operation have been so devised as to avoid as far as possible any likelihood of leakage. Maydl divides the jejunum completely, brings the distal end to the surface, and implants the proximal end into the distal portion a few inches below the fistulous opening. Mayo Robson makes the fistulous opening at the apex of a loop of jejunum, and at the same time effects a lateral anastomosis between the two limbs of the loop.

The method I have found most satisfactory is that of Witzel. A loop of jejunum is brought through an incision in the left semilunar line; an opening is made into it just large enough to receive a No. 12 catheter, which is passed into the intestine for an inch or so, and the succeeding two inches of the catheter is made to lie in a visceral peritoneal tube by suturing the wall of the intestine over it. A couple of stitches fixes the bowel to the parietal peritoneum, and the wound is closed, one stitch fixing the catheter to the skin to prevent any risk of it being withdrawn. The patient is fed at once with 4 oz. of panopeptone; subsequent "feeds" of peptonised foods are given every four hours, or more frequently if the patient can stand it. Of course, the hygiene of the mouth is attended to.

Case I.—J. H., æt. 70, admitted to hospital on April 10th, 1912, under Dr. Lloyd Roberts. For the past three years his relatives had noticed that he had difficulty with his food, but it was only during the previous six months that the patient complained of the difficulty in swallowing solid food. For three weeks he has had difficulty even with fluids, regurgitation occurring soon after swallowing. Dr. Lloyd Roberts demonstrated a stricture of the œsophagus just above the diaphragm by X-raying a bismuth meal, and transferred him to me for operation. A jejunostomy was done on April 16th, 1912. The patient went home on June 10th, feeling very well and having put on weight. It was in this case that leakage from the fistula occurred. In November, 1912, I found that this patient had been transferred to the workhouse owing to some mental trouble. The house surgeon informed me that the fistulous opening had closed, and although there was evidence of secondary deposits, the man was able to take food by the mouth. This might suggest that our diagnosis had been incorrect. I am inclined to think, however, that central necrosis of the tumour had occurred, resulting in restoration of the patency of the œsophagus. This case is instructive in showing how readily these fistulæ close.

Case II.—W. P., æt. 72, admitted under Dr. Lloyd Roberts in May, 1912. He had suffered from dyspepsia for about eight months, and had had difficulty in swallowing for four months. During the preceding few days he had not swallowed anything, and was considerably emaciated. The X-rays showed a stricture at the lower end of the œsophagus, with marked dilatation above the stricture and vigorous peristalsis. The patient suffered from heart block, pulse being 32. On May 8th the abdomen was explored; the stomach was very small, and the glands along the lesser curvature were enlarged. A jejunostomy was done, and the patient fed as in the previous case. He did well until August 23rd, when his pulse, which had never been above 42, rose to 90. Vomiting set in, and in the next forty-eight hours his pulse became uncountable, and he died on August 25th. The whole course of the disease was apparently less than eight months' duration. The autopsy showed secondary deposits in the liver. Sections of the growth showed an exceedingly malignant type of carcinoma.

Case III.—E. I., æt. 59, admitted under Dr. Lloyd Roberts in July, 1913. He had had difficulty in swallowing solids for eight weeks. During the preceding week he had been unable to swallow fluids. The stricture was shown to be opposite the seventh dorsal vertebra. A jejunostomy was done on July 18th. His condition improved considerably; he put on weight, and was sent home on August 23rd.

Case IV.—D. M., æt. 43, admitted on October 10th, 1913. He was apparently quite well until July, when suddenly he began to vomit after taking food. The food returned quite unaltered. He had lost considerable weight since July. For the preceding week he had been unable to swallow fluids. A stricture was demonstrated opposite the seventh dorsal vertebra. His condition improved after operation, and he was discharged on November 15th.

Case V.—W. T., æt. 44, admitted under Dr. Lloyd Roberts in November, 1913. A year ago he noticed that regurgitation occurred a few minutes after taking food. The vomit consisted of undigested food. His weight at that time was 13½ stone. In August he vomited a quantity of blood. On admission his weight was 8 stone. He was fed on a fluid diet, and gained slightly in weight until December 1st. He then began to lose rapidly. On December 23rd he was very collapsed, with a pulse of 140. He improved slightly in the next twenty-four hours, and clamoured for something to be done. In this case, also, the stricture was situated at the lower end of the œsophagus. An idea of this patient's condition can be formed from his weight, which was at the time of operation (December 24th) 6 stone 2 lb., while a year before it had been 13½ stone. He stood the operation wonderfully well, and although on January 12th, 1914, he had lost 4 lb. since the operation, during the last five days, by altering his diet, he has more than regained this lost weight. Since operation he thinks that he has been able occasionally to swallow food, but this is doubtful. The thought, however, that he is able to swallow even a small amount of food exercises a favourable mental effect, and he is quite bright and cheerful.

The results in these five cases justify one in regarding jejunostomy as an excellent substitute for gastrostomy. I feel confident that if gastrostomy had been attempted in the last case it would have ended in disaster. Jejunostomy can be done more quickly; a very small incision suffices to enable one to withdraw a loop of jejunum; there is very slight disturbance of viscera, and practically the whole operation is done outside the abdomen.

Either operation is but a palliative measure in so desperate a condition as malignant stricture of the œsophagus; but if it be our duty to do all in our power to prolong life and at the same time make the end less distressing, then in jejunostomy we have an operation which fulfils these requirements.

CLINICAL RECORDS.

ASLEEP WHILE RIDING A PUSH-BICYCLE.

By EDGAR F. CYRIAX, M.D.

"Can a man, while riding a push-bicycle, doze to such an extent as to permit this being in the nature of a refreshing sleep?" I do not know whether this question has ever been decided from a medico-legal point of view, but, as it possesses some interest, I beg to submit the following auto-observation.

I am an experienced rider on a push-bicycle, riding on an average 5,000 miles per annum. Every year during the last ten years, with one exception, I have commenced my summer holiday with a bicycle tour of about 1,000 miles, proceeding from London via Calais or Ostend across the Continent to Sweden. As a rule I do not ride very fast, ten miles an hour being an average during the daytime and eight to nine during the night, the total daily average being about 100 miles. I go through no sort of preliminary training.

The following details are taken from my diary during the journey:—I left London at 8.5 a.m. on July 26th, 1914. Arrived at Dover at 3.45 p.m.; distance from London 77.8 miles. Steamer to Ostend, where I arrived at about 7.45 p.m.; on board I had about twenty minutes' sleep. Departed Ostend 8 p.m.; arrived Ghent 2 a.m. on July 27th; distance from London 122.2 miles. At 4.20 I sat down by the roadside and had five minutes' sleep while sitting up. Passed Brussels 8.30 a.m.; distance 162.7 miles. After this progress was slow, as it rained most of the day. Passed St. Trond 12.55 noon; distance 196.4 miles. Passed Maastricht 4.45 p.m.; distance 221.7 miles. Left Aachen 8.45; distance 241.7 miles.

At about 11 p.m., being then about half-way between Aachen and Cologne, I was so sleepy that I found myself every minute or so having to save myself suddenly from falling over. At about midnight I had another five minutes' sleep sitting up at the roadside. At about 1.30 a.m., on July 28th, I had to walk up a very long hill, after which I had to proceed very slowly as my carbide was giving out. For the next hour or so I was again continually nearly falling over and had to keep on saving myself. Then, at about 2.30 a.m., I came to a long descent; I began to freewheel down it, going very slowly. This descent occupied about a quarter of an hour, and during it I dozed sufficiently to dream about totally extraneous matters, and during this time I was quite able to balance—never once, as far as I can remember, having to save myself from falling. At 2.45 a.m., at the end of the descent, I awoke and felt quite refreshed. I rode at a good speed into Cologne, and once in the town rode the next three miles at an unusually quick pace. I rang up a friend of mine in Cologne, who was expecting me, at 3.10 a.m., and I have his word that I showed no signs of fatigue, but was as wide awake and lively as usual. The total distance from London was 286.5 miles. On leaving him at 4.5 a.m., I rode another four miles to a hotel where I had ordered a room. After getting into bed I counted my pulse, and found its rate to be 80 per minute. I was not very tired—in fact, it took some little time before I fell asleep.

OPERATING THEATRES.

ST. THOMAS'S HOSPITAL.

A Case of Abdominal Exploration in a Soldier.—Before operating, Mr. Edred M. Corner said: This is a good example of a type of disablement found amongst the wounded. We are apt to forget that where a large number of men are gathered together there will be a lot of injuries and accidents, domestic or civilian in character. The patient is a non-commissioned officer, an old soldier, with an unbroken history of good health and wellbeing until by accident he received a blow in the abdomen with the butt end of a rifle. The accident was followed by hæmatemesis, for which he was admitted to a territorial hospital. The loss of blood was severe enough to lead to blanching of the patient. Melæna was also found. As the patient could not "pick up" he was transferred to St. Thomas's Hospital. The occasional hæmatemesis and melæna continued, and his diet could not be increased without increasing these. On examination, he had a dilated stomach, and waves of gastric peristalsis were seen travelling from left to right across the epigastrium. With a diagnosis of pyloric obstruction due to a carcinoma it was recommended that his abdomen be opened. This was done and a hardness felt surrounding the pylorus with secondarily infected glands all along the lesser curvature of the stomach and the vena cava. Clinically, and to the naked eye, this mass was carcinomatous and irremovable. No resection of the pylorus was done. A palliative measure allowing food to pass from the stomach into the duodenum was chosen. The great omentum and the transverse colon were withdrawn from the abdomen and turned upwards towards the chest. The forefinger of the left hand was then inserted into the abdomen and swept down the left side of the spinal column, commencing at the diaphragm. The first coil of the jejunum was thus found and identified by its attachment to the spine at the duodeno-jejunal flexure. It was then passed through the meso-colon and the anterior layers of the great omentum at the great curvature of the stomach, where a gastro-enterostomy was done by suture, thread on large curved needles being used. Mr. Corner said that he did this form of gastro-enterostomy because he found that it was easier to do, and its results seemed better than those of either an anterior or posterior gastro-enterostomy. If the patient's condition allowed it, he would have liked to do an entero-enterostomy between the two pieces of jejunum, attach to the stomach, and occlude by stitches the bowel on the duodenal segment between the entero-enterostomy and the stomach. This prevented any bile entering the stomach, and ensured its passage into the jejunum. The exposed viscera were douched with warm normal saline solution and reduced. The abdomen was closed in layers, a continuous catgut suture closing the wound in the peritoneum and the posterior rectus sheath, another continuous and loosely-tied catgut suture brought the halves of the split rectus muscle together, stopping all oozing; a few interrupted silk sutures were used to unite the edges of the anterior rectus sheath which were further coapted with a continuous catgut suture. The skin incision was closed by interrupted sutures of celluloid thread.

As it was not clear at the operation if the pathological condition was carcinomatous or inflammatory, Mr. Corner had decided not to submit the patient to the more severe ordeal of pylorectomy. As an illustration of the aptitude of such an incision, Mr. Corner quoted the case of a gentleman upon whom he had operated some six years ago. At the operation the pyloric end of the stomach was seen to be the seat of what appeared to be a carcinoma. Beads of growth were seen in the lymphatic vessels leading to enlarged glands, which in their turn extended through the diaphragm to the chest. Macroscopically the condition was one of inoperable carcinoma of the pylorus. A gastro-enterostomy was done, and the relations of the patient were much afflicted with the news. Six years and more have passed by, and the patient is red and healthy like a farmer. No abdominal lump can be felt. The patient eats every variety of quantity and quality of food. In fact, it is obvious to all that the cancer was no cancer and that the patient is cured. The present patient, a well-developed man, gets an accidental abdominal injury, and all his symptoms date from that. At the operation is found pyloric obstruction and secondary (inflammatory) glands. Why should they not result from inflammatory changes consequent on a submucous hæmatoma? Why should we be miserable and exclaim "Cancer"? Let us hope that that diagnosis is wrong. It is nice to be wrong sometimes.

Mr. Corner strongly urges the use of palliative operations for apparently old-standing conditions for recent symptoms found at exploratory operations.

TRANSACTIONS OF SOCIETIES.

THE NEW LONDON DERMATOLOGICAL SOCIETY.

Meeting held Thursday, December 10th, 1914.

The President, Dr. David Walsh, in the Chair.

Dr. D. Vinrace showed (1) a case of rapid subsidence of secondary syphilis after neo-salvarsan in a young man.

The President agreed as to the rapidity of the change produced by this drug. He had seen a definite improvement within even a few hours of commencing treatment. He commented upon the large bulk of fluid, 200 c.c., introduced.

Dr. H. Samuel said that formerly he gave neo-salvarsan in 200 c.c. of freshly distilled water; but latterly he had used 10 c.c. only. The latter was just as efficient; in fact, complications were less liable to occur, such as the Herscheimer phenomena. Moreover, it only required a small syringe, instead of a large apparatus. He did not know of any real objection against the larger volume, but was not aware of the reasons for preferring it to the small volume. A temperature and some vomiting occurred occasionally with large volumes.

Dr. Vinrace replied that the larger volume acted much more efficiently than the small one. A parallel case was that of iodide of potassium, which should be given in plenty of water. He believed that 200 c.c. was the original measure of the excipient.

(2) A woman in whom alopecia had followed tinea tonsurans in her child twice. In the first attack, November, 1908, fungus was found in the child. In this second case, now exhibited, he did not suggest that this younger child had tinea tonsurans now, but that he had had it, and that the alopecia followed upon it. It was an instance of repetition of history. The mother twice had a patch of alopecia as the result of infection from tinea tonsurans in her child. The late Sir Jonathan Hutchinson concluded that such was what occurred here when he gave a demonstration on this mother and her child at the Polyclinic in 1908.

Dr. Norman Meachen said he remembered the earlier teaching, that when confronted with a case of alopecia areata one should ask the question: "Have you ever had ringworm in your childhood?" Patients nearly always said they had. But that was not scientific proof. Sir Jonathan Hutchinson's idea was that a large proportion of cases gave a history of prior tinea tonsurans. But in this case the woman appeared not to have had ringworm. He suggested they were dealing with a family epidemic of alopecia.

(3) Symmetrical wrist lesions for diagnosis in a youth, æt. 19, who was employed in the decorative trade, and though he worked in red lead and dry ochre he declared that no irritants got to the affected parts. He now said he used "decorators' soap."

The President said he had found that these patients who worked in lead factories and used lead paints often used strong soaps, but they did not have dermatitis unless some heart lesion existed. This patient had an aortic systolic murmur, conducted down the sternum. If this man's compensation were to fail, he would probably have a severe generalised attack of eczema.

Dr. W. J. Midelton said he had often noticed that skin conditions were associated with nerve troubles, and these latter should receive more consideration. Lead showed a special affinity for the nervous system.

The President showed (1) a case for diagnosis in a young woman who was under his care at hospital in October, 1911, when she had two patches on the forearm with a white centre and dark surroundings. He then regarded it as an ordinary leucodermic condition, and he had not seen the case since until now. There was no history of sore throat nor of headaches. Superficial scarring could now be seen. He gave her Unguentum perchlor. When he first saw the case he suspected syphilis, but there was no evidence of it. (2) A little girl with a longstanding circinate lesion of the left forearm. The epitrochlear glands were enlarged, probably as a result of secondary coccic infection. The edge was markedly rolled. He exhibited an artist's drawing of the lesion. He had never seen lupus vulgaris with a slough in the centre. The mother's evidence had always been shaky. One was forced to judge by clinical appearance alone, as consent could not be obtained for a biopsy. He suggested the diagnosis of rodent ulcer.

Dr. Mack asked whether the rolled edge was not unlike lupus vulgaris. Possibly it was a case of mixed infection.

Dr. Samuel said he regarded the case as lupus vulgaris; not as a post-exanthem lupus because he gathered it had been there all the child's life. The scar in the centre and the nodules in the scar seemed to point to lupus vulgaris.

Dr. Meachen thought that, clinically, the case was one of lupus vulgaris; it had not the appearance of rodent ulcer. The difficulty of the past history was great. Rodent ulcer might develop in late childhood, at or near the age of 7. Dr. Gray published not long ago a case in which rodent occurred on the buttock of a child; it appeared in the *British Journal of Dermatology*. He suggested the use of X-rays in this case, and perhaps tuberculin. Possibly there was a mixed infection in the case. He had not seen lupus with a slough and an edge like this. He did not deny the possibility of it being rodent; but a biopsy would settle it.

Dr. Vinrace regarded it is lupus post-exanthematicus. Several cases had been recorded in which lupus followed measles and chicken-pox. The mother had stated that at five years of age the lesion had an area of a farthing, and at four years was the size of a pin-point. Any earlier sign was doubtful, and likewise the congenital theory.

Dr. Meachen showed

TWO CASES OF RODENT ULCER.

The first case was a woman æt. 54. Fourteen years ago the patient had, on the left side of the lip, a small cyst, which was removed by her local doctor. The present lesion had taken two years to attain to its present size. There was no pain. The appearance was different from that of the preceding case. The second case occurred in a man æt. 56. The lesion was on the right cheek, involving the lower eyelid, and there appeared to be some periostitis of the orbit.

The President thought the second case was clearly one of rodent ulcer. It would be well to ascertain whether the bone was implicated. There might possibly be epitheliomatous change present. For treatment, X-rays and radium were available. In the case of the female patient, the lesion had apparently followed traumatism—namely, the excision of the small cyst. There was no sign of atrophy. It seemed to be more malignant than rodent ulcer. If he had seen the lesion alone, without hearing the history, he would have thought of sarcoma. Dr. Samuel considered the first case was rodent ulcer; he had seen one exactly like it on the chin. The length of the history was against epithelioma, and no lymphatic glands seemed to be involved. The dilated veins on the surface favoured the idea of it being rodent as also did the shiny stretched appearance.

SPECIAL REPORTS.

THE HEALTH OF LIVERPOOL. (*a*)

In his report, which is well written and printed, supplied with many tables and illustrations, durably bound in cloth, and in every way a credit to the city of its issue, Dr. Hope tells us all we can well ask about Liverpool from his point of view. The estimated population in the beginning of the year was 756,553, an increase over the previous year of 4,532.

In 1913 the city boundaries were extended to include the neighbouring areas of Allerton, Childwall, Little Woolton, and Much Woolton which added 4,600 acres to the municipal area and increased the estimated population to 763,435.

The birth and death rates both show an increase over those of the previous year, the birth-rate being 29.8 as against 29.5, and the death-rate 18.0 as against 17.7 for 1912. This last was remarkably low, the average for the preceding five years being 18.4. The death-rate of Liverpool, like those of other large cities, is to some extent artificially increased by the influx of people coming in to the various hospitals from places outside the city boundaries.

The death-rate from zymotic disease was 2.2, epidemic diarrhœa, measles and whooping-cough causing 941, 322, and 232 deaths respectively. The death-rate from other infective disease is low, and continues to decline.

Although a large amount of attention has been given to the care of infants and young children, the death-rate for the first year was 132 per 1,000, as against 125 for the previous year.

More than two-thirds of the total births in Liverpool are attended by midwives—viz., 16,430 out of 22,555. Pre-natal hygiene has not been neglected, and the Health Committee affords facilities for midwives to obtain medical help in case of emergencies. A special inspector has been appointed to follow up all notified cases of ophthalmia neonatorum.

The great problem of tuberculosis receives thorough attention, both as regards sanatorium and other treatment, and the still more important preventive work, and it is realised that it is to prevention rather

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(*a*) "Report on the Health of the City of Liverpool during 1913" By E. W. Hope, M.D., D.Sc., Medical Officer of Health. Pp. xviii. and 345. Liverpool: C. Tinling and Co. 1914 than cure that we are to look if we intend to reduce the mortality from this disease to any considerable extent.

The number of common lodging houses has diminished, and those that remain are stringently inspected and every effort made to prevent overcrowding.

In all the other routine departments of public health work Liverpool is well to the fore, and we must congratulate Dr. Hope on the excellence both of his work in the municipality and on the admirable way in which he presents his results to our notice.

CORRESPONDENCE.

FROM OUR SPECIAL CORRESPONDENTS AT HOME.

SCOTLAND.

GLASGOW UNIVERSITY AND THE WAR.

GRADUATES and students of Glasgow University, to a number approaching 1,000, are serving with His Majesty's naval and military forces, either at home or abroad. Before the outbreak of the war the Officers' Training Corps attached to the University numbered in cadets and ex-cadets about 900. On the outbreak of war applications for commissions were invited, and over 500 men sent in their names. Of these more than 300 have received commissions, for the most part in the new Army. Some 70 others have gone to the Special Reserve and 70 to the Territorial Force. A large number of men, comprising both ex-cadets of the Officers' Training Corps and students who had had no miltary training, enlisted in the ranks, particularly of the Cameron Highlanders. Of those rankers some 50 have since received commissions in other regiments. The Officers' Training Corps is still carrying on its work—so much so that during the last two months 800 students have been undergoing a course of military training at Gilmorehill.

CENTENARY OF GARTNAVEL ASYLUM.

This institution, whose proper name is Glasgow Royal Mental Hospital, attained its centenary this month. In view of the war, the occasion was celebrated only by the granting of bonuses to all members of the staff. The first "Glasgow Asylum for Lunatics," which was afterwards the Barony Poorhouse, was opened in Parliamentary Road in 1814, when the patients from the cellars of the Town's Hospital on the Clydeside were transferred to the new premises. In 1839 these premises had become so enveloped by city buildings that the management recognised the necessity for the transference of the Asylum to a more open district. Accordingly ground extending to about 66 acres was acquired off Great Western Road and the present imposing buildings, in the Tudor-Gothic style, were erected and opened in 1843. The present Physician-Superintendent is Dr. L. R. Oswald, who is also Lecturer on Mental Diseases at the University.

PATIENTS FOR THE NEW GLASGOW HOSPITAL.

The new hospital provided by the North British Locomotive Company at their works in Springburn has accommodation for 150 patients. The first batch of wounded for it arrived on 24th inst., and numbered 100. They were all from the region of Ypres, and 25 were stretcher cases. Dr. James M. Grier is Resident Surgeon at the hospital, and Sir Hector Cameron is Consulting Surgeon; Dr. R. S. Dewar and Dr. J. Mills Renton are Visiting Surgeons, and Dr. A. M. Kennedy and Dr. J. B. Mackenzie Anderson are Visiting Physicians. Sir George Beatson was among those who received the patients on their arrival at the Central Station and saw to their transference to the hospital in 19 motor cars and eight ambulances, provided by the Red Cross Society and the St. Andrew's Ambulance Association.

CHRISTMAS AT THE WESTERN INFIRMARY.

Sir Matthew Arthur, Bart., presided at the annual Christmas meeting of the managers and the staff, and among those present were Sir Hector Cameron, Sir George T. Beatson and Colonel Mackintosh, M.V.O. The military authorities have not yet called upon this hospital to treat wounded soldiers or sailors, and in view of the many civilian cases waiting admission the managers have thought it right meantime to devote attention to the ordinary work of the infirmary. About 20 members, however, of the medical and surgical staff are serving either at military hospitals in this country or at the front. Colonel Mackintosh, the Superintendent, is Assistant Director of Medical Services in the Lowland Division of the Territorial Force. Sir Hector Cameron, at the meeting, said that one of the most notable characteristics of the present war was the splendid arrangements which had been made for the treatment of the sick and wounded. In relation to the nursing profession there had occurred, however, in this war, what he did not think had ever occurred before in the history of the world—several nurses had been killed and some had received wounds, necessitating the amputation of limbs, in the discharge of their beneficent duty. That added to the dignity of the profession, which now touched the summit of human philanthropy.

LETTERS TO THE EDITOR.

[We do not hold ourselves responsible for the opinions expressed by our Correspondents.]

THE ADMINISTRATION OF BETHLEM ROYAL HOSPITAL.

To the Editor of THE MEDICAL PRESS AND CIRCULAR.

SIR,—I am not surprised that you ask questions about the Royal Hospital of Bethlem, and I have no difficulty in answering them. I was Medical Officer there for 17 years, and since then I have been and am a Governor.

The hospital was intended for the poor of the educated classes, and has been and is still for them.

It is a hospital for the cure of cases, and as a rule patients who have not shown signs of recovery at the end of a year are discharged to make room for more hopeful cases. There is a small special fund for a few incurable patients whose cases are specially suitable for charity. The income is derived chiefly from landed estates, and as their value has steadily fallen it was found impossible to maintain the large hospital and its convalescent branch in Surrey on the reduced income, so in the time of my physicianship application was made to "The Charity Commission" for permission to admit a certain number of patients at a fixed rate of £2 2s. a week. This permission has been from time to time renewed, and as a result the hospital has been able to receive its full complement of patients, and has made very great internal improvements.

There is a weekly committee for admission of patients, and this is fully represented by the City members.

The sad accident recorded by you was a result of the shortage of the medical staff for a time, due to the fact of the junior officer, who has always had to be nominally the apothecary, being on war service. At the very time the accident occurred the resident physician was engaged in submitting plans for the appointment of a dispenser. This has been done.

I think the County Council have no part in the hospital, which is under the Corporation and elected Governors.

The Governors are only too willing to submit the management to observation.

I am, Sir, yours truly,
G. H. SAVAGE.

26 Devonshire Place, London, W.,
December 23rd, 1914.

OPERATIONS FOR APPENDICITIS.

To the Editor of THE MEDICAL PRESS AND CIRCULAR.

SIR,—"Physician's" letter consists mainly of personal observations and reflections which, however interesting in themselves, do not advance his thesis from the scientific point of view; nor do they supply any fact towards demonstration of the necessity of the physician's services in any phase of appendicitis. Virtually nothing is known about the ætiology of the disease, and neither physician nor surgeon can do anything to prevent it. Of its pathology and morbid anatomy we know more than enough to prove the uselessness of medical treatment in prevention of either a chronic phase or of an acute or virulent development. The physician is as powerless in treatment of appendicitis as he is in treatment of stone in the bladder, acute glaucoma, strangulated hernia, cancer of the breast, or a score of other purely "surgical" diseases—*i.e.*, diseases in which "the knife" offers the sole means of relief or cure. By a process of exclusion any physician ought to be able to make a diagnosis—a very necessary accomplishment. The number of surgeons or physicians who will dissent from these opinions is extremely small. "Physician" does not seem to recognise that when he writes about the "swing of the pendulum" he suggests that the great bulk of those specially qualified to pronounce judgment in a matter of life and death are influenced, not by scientific fact, observation and experience, but by some shallow fad or fancy. This is certainly a libel upon the surgeon of the day, than whom no class is more thoroughly steeped in the learning and knowledge that guide their art. A more kind-hearted and hard-headed lot of men it is impossible to find among professions claiming, albeit tacitly, to stand ultimately on a foundation of true humanitarianism.

I am, Sir, yours truly,
Reviewer.

Christmas, 1914.

"AN IMPROVED (DOYEN'S) MOUTH GAG."

To the Editor of The Medical Press and Circular.

Sir,—There are many modifications of Doyen's original pattern, which is still sold by some makers. This was worked by a rack-catch (like artery-forceps) instead of a ratchet and spring, so that its sudden release was sometimes difficult or impossible.

Most of Mr. Heath's objections (Medical Press and Circular, December 16th, 1914), may be obviated by care; the guarding of the ratchet is, however, a distinct improvement, as regards most patterns. In the one I use it is guarded by the (spiral) spring.

Nipping of the lower lip is a misfortune I used to find impossible always to avoid (especially with unruly children) when the gag has to be put in before induction of anæsthesia (as is necessary when using nitrous oxide or ethyl-chloride only).

I have found that it may be prevented by a simple oblong rubber shield of size adapted to the patient. This is put on the lower jaw of the gag, which passes through a horizontal slit near the top, so that the shield comes between the lower lip and the teeth. In Mr. Heath's model there is a shallow groove for the reception of the teeth, but I doubt whether this will prove always to be effectual.

I am, Sir, yours truly,
J. D. Mortimer, M.B., F.R.C.S.
Anæsthetist, Central London
Throat Hospital, etc., etc.

12 Clifton Hill,
St. John's Wood, N.W.

OXFORD OPHTHALMOLOGICAL CONGRESS.

To the Editor of The Medical Press and Circular.

Sir,—The Oxford Ophthalmological Congress will assemble at Keble College, Oxford, on the evening of Wednesday, July 14th next, and the meeting will be held on Thursday, the 15th, and Friday, the 16th July. A discussion will take place upon "Industrial Diseases and Accidents," the opening remarks of which will be delivered by Dr. Frank Shufflebotham, of Newcastle-under-Lyme. The subjects included will comprise "Coal-miner's Nystagmus," having special regard to its "Symptomatology" (Dr. T. Harrison Butler, Leamington Spa); "Psychology" (Mr. T. S. Maitland, Birmingham); "Physiology" (Mr. J. Jameson Evans, Birmingham); and "Prognosis" (Dr. A. C. Norman, Sunderland). "Industrial Cataract" will be dealt with by Dr. William Robinson (Sunderland); "Plumbism as it affects the Eye," by Mr. S. McMurray (Stoke-upon-Trent); "Steel Furnace Accidents," by Mr. S. H. Pooley (Sheffield); and "Some of the Rarer Industrial Diseases of the Eye," by the Master, Mr. Sydney Stephenson, Dr. J. Gray Clegg, of Manchester, and Dr. Collis, of the Home Office, will also contribute papers.

It is proposed to devote the first day of the meeting to demonstrations only, and it is hoped that members will make a special effort to assist with cases, specimens, operations, or novelties. If your readers have any such, that they are willing to bring forward, will they kindly notify the undersigned at the earliest opportunity, and their contributions will be welcomed.

I am, Sir, yours truly,
Bernard Cridland,
Hon. Secretary.

Wolverhampton,
December 22nd, 1914.

PROHIBITION IN AMERICA.

To the Editor of The Medical Press and Circular.

Sir,—Dr. Reid's experience in America with regard to prohibition, as reported in the Medical Press and Circular, December 16th, p. 629, is so contrary to mine as to deserve some notice.

I have never met an impartial non-abstainer, in America, who did not inform me that in his opinion prohibition is a failure; and even abstainers have stated to me that they were afraid there was a quantity of illicit drinking. I knew always where to go to get some "strong soda water." The alcohol was always of an inferior quality, which does far more harm in excess than well-matured spirit. This also applies to Norway, another country where prohibition exists. I am afraid Dr. Reid must have met some of his Medical Temperance Association's fanatics.

I am, Sir, yours truly,
Thomas Dutton.

25 New Cavendish Street,
Harley Street, W.,
December 23rd, 1914.

PROFESSIONAL ETIQUETTE AND THE R.A.M.C.

To the Editor of The Medical Press and Circular.

Sir,—Mr. M. Mayne asks a very plain question, to which, I think, a very plain answer can be given. The whole social fabric is founded on a spirit of compromise—*i.e.*, the sacrifice of some portion of the individual will for a common purpose. Presumably, Mr. Mayne is an ordinary Infirmary Medical Officer who but occasionally operates. He is therefore not entitled to be considered an expert on a highly technical matter. Equally presumably, the Consulting Surgeon to the Troops is a hospital surgeon of eminence who, from the constant practice of operating, is an expert. Under the circumstances, Mr. Mayne's obvious duty was to have subordinated his authority and opinion to the interests of the patient. He did not do this. Therefore, ethically considered, his conduct was wrong.

I am, Sir, yours truly,
Kenneth Campbell.

23 Wimpole Street,
London, W.

REVIEWS OF BOOKS.

OBITER SCRIPTA THROAT, NOSE AND EAR. (a)

In this brochure the author places before his readers some notes on the treatment of abnormal conditions in the throat, nose and ear, frequently met with in practice. Special attention is given to some points bearing on the application to infections in these regions of the methods devised by Sir Almroth Wright on the one hand, and by Professor Leduc, of Nantes, on the other, for the combating of bacterial diseases. The little book contains three chapters. In the first the author gives miscellaneous notes on common conditions in the throat, nose and ear. We are glad to note that he recommends postponement of operation when there is any doubt as to the advisability of removing a child's tonsils. He describes in detail a practical method of controlling troublesome hæmorrhage after removal of tonsils, but we are surprised to learn that he has met with this condition fairly frequently, because in the course of a large experience of this operation we have not met with a case of severe bleeding. He points out that vaso-motor rhinitis, and other conditions of active or passive congestion in the nose, can be much improved by electrolysis of the part where swelling is marked, the *technique* of this operation being fully described. In Chapter II. the value of zinc ionisation in the treatment of septic surfaces is discussed; while Chapter III. is devoted to the consideration of the treatment of ozæna, with some notes on Friedländer's pneumobacterium. The brochure contains much interesting information of practical value and should appeal to all those in general practice who may be called upon to deal with affections of the throat, nose and ear.

(a) "Obiter Scripta Throat, Nose and Ear." By A. R. Friel, M.A., M.D., Hon. Physician for the Throat, Nose and Ear General Hospital, Johannesburg. Bristol: **John Wright and Sons, Ltd.** 1914. Price 2s. 6d. net.

PEDIATRICS. (*a*)

This work is a complete treatise upon the management and treatment of the infant and child from birth onwards in health and in sickness. Every phase of child life is fully dealt with, and each ailment, functional or organic, is systematically described, together with the treatment requisite at different age-periods. The first portion deals with the nutrition and growth of the new-born infant, the subject of feeding by natural and artificial means being fully discussed. The various causes of malnutrition are next described with the appropriate treatment of each. No two children are exactly alike in appetite or in habits, and Professor Kerley is careful to point out the necessity for an individual study of the ways of each infant, and he is great on the importance of the formation of correct habits of life from the earliest possible age. He who would lay claim to any special knowledge of children's complaints soon finds out that a large proportion of his practice is connected with weakly children of the upper and middle-classes. The problem of the "delicate child" is discussed in a special section, and careful directions are outlined for the management of such. Much trouble would be saved if mothers would take pains to be more methodical in the ordinary, everyday management of their children, for, after all, the future health and well-being of infants are largely in the hands of their parents.

Then follow chapters upon the diseases of each system, which are described in detail, over sixty valuable prescriptions being incorporated in the text. In such acute affections as broncho-pneumonia, a timely warning is given against the exhibition of heart stimulants too early in the course of the disease. We notice that the author favours the treatment of pulmonary tuberculosis in children at home, rather than in sanatoria, special attention being given, by personal supervision, to domestic hygiene. He is also a firm believer in the efficacy of baths, for he says, "I have yet to know of a child who suffered from the effects of a bath properly given, and I know of hundreds who have suffered because of its absence." With regard to the administration of unpalatable drugs to children, the method of giving them, when possible, in capsule, tablet or pill form is recommended, since "the element of taste is a most important one to a child." A short account is given of vaccine-therapy, but the section on tuberculin is too short and hardly carries conviction. The various gymnastic exercises that are put to therapeutic use are well described. Scattered throughout the book are brief descriptions of illustrative cases which maintain the interest of the various sections in a practical manner. The majority of the illustrations are well chosen. Though X-rays are described for other affections, we do not find them mentioned, curiously enough, in connection with the treatment of ringworm of the scalp. A list of drugs is given with the appropriate internal dose from six months to five years. The practitioner who is in search of a one-volume encyclopædia of children's diseases cannot do better than take Kerley's "Practice of Pediatrics" as his guide.

HOW TO LIVE LONG. (*a*)

That the veteran author of the present work has benefited himself by the advice and hints which it contains as to the means for prolonging life is evident, for in the preface to this, the fourth edition, he says that although in his 91st year "I possess good health and a fair amount of strength, and am able, to some degree, to watch the progress in my old profession, in science and art and social matters; and I still enjoy the beauties of nature in my country walks, and above all things the intercourse with my children and their families, and with old friends." Thus it by no means follows that the grasshopper should become a burden when "the sound of the grinders is low," and if the doctrine of temperance in all things, moderation in eating, the cultivation of a cheerful disposition, and the knowledge of the methods of prevention of disease were more widely disseminated among mankind, centenarians, or at any rate nonagenarians, would be found in every street. The author attributes the most important factor in longevity to the state of the arteries, and this is in keeping with the now accepted clinical observation that "a man is as old as his arteries." The advantages of regular open-air exercise, and especially of walking, and of great moderation in diet at the period of middle life are emphasised. The perils of worry are pointed out in the chapter upon food, where the author remarks that some persons "do themselves harm by continually fearing to violate the rigid rules of living which they themselves or others have imposed on them." Most helpful are the hints given about sleep and the prevention of insomnia, and instances are given of celebrities and great mental workers who have done with very little sleep. All who would "fain see many days" would do well to read and ponder the pages of this most practical book.

OBITUARY.

SIR ROBERT SIMON, M.D., OF BIRMINGHAM.

We regret to record the death of Sir Robert Simon, B.A., M.D.Cantab., F.R.C.P.Lond., Consulting Physician to the Birmingham General Hospital, which took place on the 22nd inst., at "Penshurst," Edgbaston, of heart failure following influenza, aged 64. The deceased, who qualified as M.R.C.S.Eng. in 1875, received his medical education at Caius College, Cambridge, Guy's Hospital, and Berlin. He became M.R.C.P.Lond. four years later. His father was Mr. Louis Simon, of Nottingham. Sir Robert was well known as a physician of sound judgment and a teacher of no ordinary ability. He was at one time Professor of Medical Jurisprudence at Mason College, and afterwards was Professor of Therapeutics in the Birmingham University. He was formerly Physician to the Manchester Southern Hospital for Diseases of Women and Children, and afterwards he was appointed Physician to the Birmingham General Hospital, a post which he held for twenty-three years. He received the honour of Knighthood in 1910. In 1887 he married Emily Maud, daughter of the late Mr. W. H. Willans, of High Clyffe, Seaton, Devon. Sir Robert Simon was the author of "Lectures on the Treatment of the Common Diseases of the Skin" and also of a work on "Diseases of Brassworkers."

(*a*) "The Practice of Pediatrics." By Charles G. Kerley, Professor of Diseases of Children, New York Polyclinic Medical School and Hospital, etc. Pp. 878. Illustrated. Philadelphia: W. B. Saunders and Co. 1914. Price 25s. net.

(*a*) "The Means for the Prolongation of Life." By Sir Hermann Weber, M.D., F.R.C.P. Fourth Edition. London: John Bale, Sons, and Danielsson, Ltd. 1914. Pp. x., 235.

MEDICAL NEWS & PASS LISTS.

The Drug Habit—Future Sale of Laudanum.

Dr. Waldo held an inquest at Southwark last week touching the death of Maria Phillips, aged 52. It was stated that the deceased, who was the widow of a soldier, had lived for some years in India, where she contracted a malady for which a doctor prescribed laudanum. For the last six years she had taken four or five ounces of the drug every week; on Friday she had an ounce. On Saturday morning, on arriving at the Polytechnic, she was taken ill and died.

Mr. Thomas Cusan, manager of Boot's Drug Stores, London Road, S.E., said he had supplied the deceased with four or five ounces of laudanum a week for the last five or six years. He knew it was a deadly drug, but he continued serving her because she did not seem to be affected by it. At present the law only required that the poison should be supplied in a bottle distinguishable by touch, and that the label should bear the name of the drug and the name and address of the seller. On January 1st, however, laudanum would be included in the first schedule of the Poisons Act, and the purchaser would have to sign the poisons book. The drug was to be strengthened, which, he thought, would be better in the interests of the public, and a purchaser would be easily traced in criminal cases. An adult dose was from five to thirty drops. A baby had been killed by one drop. Witness had known a man to take three ounces at a time without dying. No doubt the deceased would have gone elsewhere if he had not served her.

Dr. Thomas Massie, who was called to the deceased, said that death was unconnected with the taking of the drug, and was due to heart failure, following inflammation of the lungs.

In returning a verdict in accordance with the medical evidence, the jury expressed their thanks to the General Medical Council for having the drug placed in the First Schedule.

The Coroner said he agreed.

Royal Naval Medical Service.

The following has been granted commission as temporary Surgeon in His Majesty's Fleet:—A. M. Gray, M.B., S. S. Beare.

Royal Naval Volunteer Reserve.

The following have been entered as Surgeon Probationers:—T. B. Bailey, G. Lilies, D. R. M. Nicol, T. C. St. C. Morton, J. Brumwell, R. J. Patchett, R. O'Connell Redmond, G. A. Clark, J. F. Haynes, P. S. Clarke, D. A. Knight, J. E. Phillips, R. E. Batson, F. R. Law, and T. L. P. Harries, all with seniority of December 21st.

Army Medical Service.

R.A.M.C.—The following have been appointed temporary Lieutenants:—H. Moore (August 11th); H. H. White, M.D. (December 6th); J. M. Barkley, M.B., L. A. Walker, M.D., E. P. Chennells, M.B., R. Sherman, M.B., C. C. Holman, M.B., F.R.C.S., F. Paine, M.D., V. Borland, M.B., A. L. George, J. McA. Hill, M.B., J. C. McConaghey, M.D., J. S. English, M.B., J. R. G. Garbutt, M.B., N. Booth, M.B., F. A. Murray, M.D., S. J. Ormond, M.D., R. A. Campbell, M.D., J. J. Johnson, M.D., J. N. Dobbie, M.B., S. G. Billington, M.B., F.R.C.S.Edin., M. Du B. Ferguson, M.D., W. F. Dunlop, M.B., F. R. Dougan, M.B., I. A. Dowling, S. Campbell, M.B., J. C. P. Bayley (December 7th); E. C. A. Smith, J. W. C. Gunn, M.B., G. W. Armstrong, H. Thwaites, L. D. Saunders, S. Murray, M.B., J. Craig, M.B., E. D. Wortley, H. E. H. Tracy, T. Duncan, J. Lumb, M.B. (December 8th); J. A. Montgomery, M.D., R. Marshall, M.B., J. R. Kemp, G. Matthews, M.B., J. D. C. Swan, M.B., V. J. Lawless, W. L. Hodge, A. V. J. Harrison, M.B., R. M. Greig, M.B., D. H. D. Wooderson, M.B., C. O. Stallybrass, M.D., P. J. S. O'Grady, M.B., R. C. Monnington, M.D., T. B. McKendrick, J. Stephenson, M.B., D. C. Turnbull, M.B., R. M. Boyd, M.B., S. J. Simpson, M.B., F.R.C.S.Edin., E. Kidd, M.B. (December 10th); W. Morris, C. A. Boyd, M.D. (December 11th); C. R. B. Von Braun, A. C. S. Courts, M.D. (December 12th). Lieutenant W. N. Alexander relinquishes his temporary commission (December 10th); Temporary Lieutenant F. G. Sharpe resigns his commission (December 11th).

University of London.

The following have passed the M.D. examination:—

Branch I. (Medicine).—L. A. Dingley, B.S., University College Hospital; T. P. Edwards, B.S., St. Bartholomew's and University of Leeds; E. L. Horsburgh, B.S., Manchester University; J. H. Lloyd, B.S., and Jivraj Narayan Mehta, B.S. (University Medal), London Hospital; J. Tattersall, B.S., St. Mary's.

Branch III. (Mental Diseases).—G. W. B. James, B.S., St. Mary's; J. C. Woods, B.S. (University Medal), London Hospital.

Branch IV. (Midwifery and Diseases of Women).—Florence M. Edmonds, B.S., and Alice E. Sanderson, B.Sc., B.S., London (R.F.H.) School of Medicine for Women.

Branch V. (State Medicine),—W. A. Berry, B.S., St. Mary's and Royal Institute of Public Health.

London School of Tropical Medicine.

The following have passed the examination at the end of the 46th session of the London School of Tropical Medicine:—

W. I. Escoffery, M.B., B.Ch.Aber. (Colonial Service), with distinction; G. C. S. Perera, L.M.S., Ceylon (Colonial Service); A. E. Schokman, M.R.C.S., L.R.C.P.; C. Deuntzer, M.R.C.S., L.R.C.P.; E. F. Wills, M.B., C.M.Edin.; J. E. Moffatt, M.R.C.S., L.R.C.P.Ireld. (Colonial Service); E. B. Bate, M.B.Dublin (Colonial Service).

Society of Apothecaries of London.

The diploma of the Society was granted to the following candidates, entitling them to practise medicine, surgery, and midwifery:—D. Havard, H. R. Ibbotson, C. H. Philips, G. Robinson, T. J. R. Scholtz, and W. C. S. Wood.

Conjoint Examinations in Ireland.

The following candidates have passed the examination by the Royal College of Physicians and the Royal College of Surgeons, Winter, 1914:—

Preliminary Examination.—Daniel D. Bulger, Michael N. Conway, Theodore A. Cronhelm, Victoria E. Davidson, John W. Dickson, Cecil W. Empey. Alfred James, Thomas J. Kerr, Jeremiah Lyons, James J. Lyons, Bernard A. McElhinney, Mossey Scher, James T. Sheffield, Alfred Shepherd, William E. Shipsey, Eileen Sullivan, Jessie R. M. Wallace, William F. White.

First Professional Examination.—R. E. Conolly, B. Epstein, Miss E. Gleeson, S. J. Halpin, C. E. Herbert, F. R. Humphreys, E. D. Nolan, J. Power, R. A. Scott, A. A. Townsend.

Second Professional Examination.—G. G. C. Adams, R. J. Bassett, J. J. Campbell, I. B. Culhane, E. H. H. Lloyd Dodd, W. Evans, L. Finnegan, P. J. Flood, C. K. T. Hewson, F. L. Macdowel, D. J. O'Flannagan, G. W. Pope, M. M. Price, D. E. Young.

Third Professional Examination.—H. Gerard, J. Hegarty, D. L. Kelly, W. A. Malone, L. P. O'Connor, J. Ryan, P. K. I. Ryan, W. G. Thompson, H. R. Wright.

Final Examination.—H. J. Cotter, G. S. Douglas, M. Fitzgibbon, T. F. Higgins, E. Harnett, C. F. Dillon Kelly, D. Kelly, L. C. Dillon Kelly, W. J. A. Laird, A. McCawley, F. P. B. McTavish, J. D. MacCormack, T. N. Neale, T. F. O'Donoghue, J. Purcell, C. Roche, G. P. Sheehan, C. J. P. Stack.

Diploma in Public Health Examination.—A. W. Forrester, L.R.C.P. and S. Edin. (with honours), Miss J. J. M. Morton, M.B.Durh. (with honours), D. T. Lewis, M.R.C.S., L.R.C.P., G. C. Sneyd, L.R.C.P. and S.I., J. H. Walsh, L.R.C.P. and S.I.

Summary of Recent Medical Literature English and Foreign.

Specially compiled for The Medical Press and Circular.

The Subdivisions of Chronic Metritis.—Shaw (*Jnl. Obs. and Gyn. Brit. Emp.*, xxvi., 2) says, from a pathological standpoint the nomenclature is hardly correct, but is invaluable as a definite clinical term. By it is meant a uterus symmetrically enlarged and hard, which contains no fibro-myomata or malignant disease, and which causes hæmorrhage, pain and leucorrhœa. Microscopically a nulliparous can always be distinguished from a parous uterus by the distribution of the elastic tissue, as there is always some remains of the elastic layer to be found around some of the groups of vessels, even when involution has been quite normal. Subinvoluted uteri which histologically show large amounts of elastic tissue around the blood vessels form the main mass of those uteri which are diagnosed clinically as chronic metritis. Chronic metritis is divided into two groups. (1) Chronic subinvolution: A section through any part of the uterus shows the increase in size to be due to an increase in the amount of all the constituent elements. The majority of the specimens show a slight increase in the fibrous tissue, especially in the outer third, but in no specimen was it marked around the blood vessels, nor the increase sufficient to account for the size of the uterus. The elastic tissue has the same distribution as in the normal multiparous uterus, but in very much greater quantity. The blood vessels are increased in size and their walls thickened, but in the majority of cases not markedly. The great change is the amount of elastic tissue in and around the blood vessels. In fifteen out of twenty-five specimens the endometrium was markedly increased in thickness, but evidently not from congestion. Ten of the specimens were from patients who dated their symptoms from their last confinement, while in twelve the symptoms only developed when near the menopause, though their last confinements had been from three to twenty years previously. All specimens in both classes of history showed exactly the same changes. It is at the menopause, when the muscular tissue atrophies, that the full effect of the change comes into play. The second group, hypertrophic uteri, which present the same clinical symptoms—hæmorrhage, pain, enlargement—differ from the last group in that they occur in nulliparous women. All this class had walls considerably thickened, but the elastic tissue followed the arrangement as found in the normal virgin uterus. None showed any increase in the percentage of fibrous tissue, the increase being made up of muscular and fibrous tissue in the normal proportions. The blood vessels are not increased in size or number. In this group the uterus may be as large as in the sub-involution class, and this is produced by a definite hypertrophy of all the constituents. The marked feature is the thickness of the endometrium. It appears that in this group the endometrium is primarily at fault from some unknown cause, and these cases are cured by curetting during the early stages while the hypertrophy is confined to the endometrium. If this thickening is allowed to persist it acts as a foreign body and gives rise to general hypertrophy from extra work and effort to expel the thickened endometrium. F.

Ætiology of Eclampsia and Albuminuria.—Young (*Jnl. Obs. and Gyn. Brit. Emp.*, xxvi., 1) says there is no doubt that pregnancy is the cause of eclampsia and the poison in its ultimate origin is to be traced to the child or the placenta. Since the toxæmia may persist after the death of the child, the child must be excluded as the source of the poison, for the resultant thrombosis will cut off any supply from the maternal blood; the placenta therefore must be the source of the poison. The paper goes to prove that the source of the toxins is the recent infarcts commonly found in the placenta. In severe cases ending rapidly in labour there may be no evidence visible to the naked eye of placental disease, but if the placenta is born several days after the attack, massive necrosis of recent origin is seen. It requires some time for the necrosis to evolve into visible form. Placental infarction is due to an interference with the maternal blood supply of the part, and the chorionic elements are dependent upon the maternal blood supply and can live on this even when the fœtus is dead. The infarction is not the result of toxæmia, and may be found most extensive in cases where there is no evidence of toxæmia—*i.e.*, accidental hæmorrhage. The placenta is unique as an organ in which products liberated from a dying patch can pass directly into the blood-stream. For the occurrence of toxæmia, a circulation of blood around the poison-generating foci is necessary. This fact explains why toxæmia ceases when the fœtus dies and the placenta becomes detached, and why there is no toxæmia in accidental hæmorrhage. Where the placental disease is gradual there is more chance of the isolation of infarcts; this explains why in long-standing albuminuria there may be more visible disease than in an acute eclampsia. The toxin is concluded to be autolytic products liberated in the early stages of the placental death. By imitating this process a soluble material has been separated from a normal placenta which can reproduce the clinical features and morbid changes characteristic of eclampsia. Post-partum eclampsia is not explained by this theory, except by the possible retention in the uterus of a portion of placenta to act as the source of the poison. F.

Adenomyomata of the Uterus.—Both Leitch and Gough (*Jnl. Obs. and Gyn. Brit. Emp.*, xxvi., 2) report cases of this in which disease of the uterus was accompanied by that of the sigmoid flexure, and of the Fallopian tube in the case reported by Gough. Neither of the reports suggest metastatic origin for the secondary growths, but suggest that they are really due to direct extension of the growth through the uterine wall and then invading a neighbouring organ which had become adherent and subsequently became detached. In both cases the disease in the intestine was extending from the serosa towards the mucosa and infiltrating the muscular coat. F.

Syphilis and Salvarsan.—Gibbard and Harrison (*R.A.M.C. Jnl.*, October, 1914) gave an interesting description of the treatment of syphilis by salvarsan at the Rochester Row Hospital during the last four years. In proof of the value of this treatment they state that in place of 315 clinical relapses within the first year out of 371 cases of syphilis treated with mercury alone they now have 9 clinical relapses out of 285 cases treated with salvarsan and mercury. The purely mercurial cases were treated regularly throughout the year; the salvarsan and mercury cases were mostly treated for only the first three months. They have yet to experience their first casualty after giving more than 3,900 injections, and out of 4,425 injections given by officers in seven large stations in the United Kingdom, from whom they have received reports, only one death has been experienced. This, in fact, is the only death from salvarsan which has been reported to the War Office since its introduction, with the exception of one death in India from gumma of the brain a few days after an injection. They have only had two cases of cranial nerve disturbance in cases treated with salvarsan. Considering that every known method of examination, including lumbar puncture, was used to detect relapses, they consider that no form of treatment has yet been devised for syphilis which

has given such good results—results which mark more than anything else the enormous advance in the therapy of syphilis which Ehrlich's discovery has made.
K.

Thyroid Operations under Local Anæsthesia.—Lahey (*Boston Méd. and Surg. Jnl.*, October 15th, 1914) records his experience in operating under local anæsthesia on eight patients for enlargement of the thyroid gland. A 2 per cent. solution of novocain, freshly prepared, with 15 minims of adrenalin added to each ounce, was used in all but two of the cases. In these two cases a 1 per cent. solution of novocain was used, but it was not found to be so satisfactory as the stronger solution. Dr. Lahey considers that better results are obtained if the first infiltration is made into the skin rather than into the areolar tissue beneath the skin, but points out that it is important to make a further injection of the novocain round the large veins of the platysma before they are clamped. Considerable discomfort is experienced by some patients, but the writer expects to be able to overcome this to a great measure by the use of scopolamine and morphia. Further experience since the paper was written has shown the advantage of this addition. Dr. Lahey draws the following conclusions from his experience:—It is unfair to draw any broad conclusions from this small number of cases. While the operations could not be said to be free from pain, yet the pain suffered was slight. Each operation took approximately one-third longer than it would have taken with ether, but the technical difficulties were rather less than the writer has found them to be when ether is administered. The post-operative recoveries have been excellent and much more comfortable for the patient than in cases where ether had been administered. On the whole, the procedure has been so satisfactory that the writer would wish to continue its use, especially in the case of patients presenting toxic symptoms.
K.

Results in Cases of Gastric and Duodenal Ulcer.—Joslin (*Jnl. Amer. Med. Assoc.*, November 21st, 1914) records the end results in a group of patients presenting the symptoms of gastric or duodenal ulcer who have been under his care during the last sixteen years. These patients numbered 234, and of these the present condition of 213, or 91 per cent., is known. Of the total number 142 were men and 92 were women. The average age of the men when first seen was 45 years and 2 months, but the age at the onset of the symptoms was 38 years and 8 months. The average age in the women was 36 years and 4 months, but at the onset 30 years and 10 months. The average duration of the ulcer in patients still unrelieved is 11 years, the average duration of ulcer before the patients reached the surgeon 10 years. There were 131 patients who were treated medically throughout, and of these at present 51, or 39 per cent., are well, 55, or 42 per cent., are relieved; 16, or 12 per cent., are unrelieved; and 9, or 7 per cent., are dead. Of the patients who were operated on when medical treatment had failed, 82 were traced, and of these 33, or 40 per cent., are well; 13, or 6 per cent., are relieved; 10, or 12 per cent., are unrelieved, and 26, or 32 per cent., are dead. If one deducts 12 deaths for which the surgeon should not be held responsible there are 70 surgical cases, in which 33 patients, or 47 per cent., are well; 13, or 19 per cent., relieved; 10, or 14 per cent., unrelieved; and 14, or 20 per cent., are dead. The combined medical and surgical results show at present: well, 84 patients, or 39 per cent.; relieved, 68 patients, or 32 per cent.; unrelieved, 26 patients, or 12 per cent.; dead, 35 patients, or 16 per cent.
K.

MEDICAL WAR ITEMS.

An officer in the R.A.M.C. contributes his experiences of active service at the Front to the *Times* as follows:—

"Figure to yourself (as Wells says, isn't it?) a country of flat ploughed field, pollard willows, and deep muddy ditches. Then we came along and, in military parlance, 'dug ourselves in.' That is, with the sweat of the brows of hundreds of Tommies working by night deep narrow trenches, 5 feet deep at least, with the earth thrown up another 2½ feet as a bank on top. These trenches are 1½ feet to 2 feet wide, and curl and twist about in a maddening manner to make them safer from shell fire. Little caves are scooped in the walls of the trenches, where the men live about four to a hole, and slightly bigger dug-outs where two officers live. All the soil is clay, stickier and greasier than one could believe possible. It's like almost solid paint, and the least rain makes the sides of the trenches slimy and the bottom a perfect sea of mud—pulls the heels off your boots almost. One feels like Gulliver walking along a Lilliputian town all the time. The front line of trenches—the firing line—have scientific loopholes and look-out places in them for seeing and firing from, and a dropping fire goes on from both sides all day long, but is very harmless. I was just starting for my daily constitutional on top when the enemy began their bombarding, nearly 1½ hours earlier than usual, so I will postpone my little walk and finish this instead. Yesterday we had one man killed and two wounded, the first casualties for over a week. The story of one of the wounded is worth telling to show you the pluck of these men. He told me he noticed some new digging going on on the side of the enemy in front of his firing-post. One can see the spadefuls of earth coming up from below the ground level when new trenches are being dug. Although this was in broad daylight, our man thought he would go and see what the Germans were up to, so he hops over the side of his trench and runs forward 30 yards to a ditch and crawls along it some 100 yards or so. He then spots a large shell-hole in a field on one side of the ditch, so doubles off and gets into that and has a good look round. Not satisfied with the point of view, he sprints to a line of willows nearer still to the enemy—within 250 yards of them indeed—and proceeds to climb up one of them. While doing this he gets shot through the shoulder. He told me he thought he had ricked his arm at first, as it felt numb and useless. Meanwhile a great pal of his in the regiment, hearing that he had gone out like this, hops over the parapet and sets off to look for him, and comes up just as he gets hit. The second man upbraids the first roundly for being a fool, carries his rifle for him, and brings him back. All this is done quite in the day's work and 'sub rosa,' as they would get punished for leaving the trench like that in the daytime if it was spotted. The pluck of these men is perfectly extraordinary, and the placid way life goes on under the risk of being sniped or shelled any moment is, until one gets used to seeing it, quite past belief. I must say the officers set the men a magnificent example."

The names of the visiting staff of the new "King George Hospital" at Waterloo have now been published, and are as follows:—Physicians: Drs. Newton Pitt, Raymond Crawfurd, Lewis Smith, J. A. Ormerod, James Collier, Farquhar Buzzard, F. M. Sandwith, and Sir John Broadbent, Bt. Surgeons: Messrs. Stanley Boyd, Herbert S. Clogg, Herbert F. Waterhouse, Sir W. A. Lane, Bt., Francis J. Steward, Charters J. Symonds, J. W. Thomson Walker, Hugh M. Rigby, James Sherren, Gordon Taylor, Willmott Evans, D'Arcy Power, H. J. Waring, W. H. Clayton Greene, S. Maynard Smith, Joseph E. Adams, E. M. Corner, H. B. Robinson, Charles C. Choyce, L. H. McGavin, Wilfred Trotter, W. G. Spencer, William Turner, and Donald Armour.

NOTICES TO CORRESPONDENTS, &c.

☞ Correspondents requiring a reply in this column are particularly requested to make use of a *Distinctive Signature or Initial*, and to avoid the practice of signing themselves "Reader," "Subscriber," "Old Subscriber," etc. Much confusion will be spared by attention to this rule.

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REPRINTS.—Reprints of articles appearing in this JOURNAL can be had at a reduced rate, providing authors give notice to the publisher or printer before the type has been distributed. This should be done when returning proofs.

LORD KITCHENER AND MEDICAL STUDENTS.

THE Editor of "The Sunday at Home" for January, 1915, commenting on his lordship as a speaker, refers to the presentation of prizes to the students at Middlesex Hospital. He remarks:—"The speech was an excellent one, every sentence carefully chiselled, full of matter, all superfluous words shorn away, and not a word wanting. I suppose it was characteristic of Kitchener that the address was entirely empty of compliments, either to students, teachers, or the profession, and that the greater part of it—it was quite short—was devoted to telling the students that they would need much extra instruction and training if they became doctors in the army. They would require special knowledge as to the conditions of life in barracks and in camps and in time of active service. The concluding counsel of the address was, 'Work hard and play the game.'"

DR. T. H. M. (Cootehill).—Communication arrived just as we were going to press and is too late for insertion in the present issue. The subject is dealt with in our editorial columns.

FACTORY AND WORKSHOP ACTS, 1901 to 1911.

NOTIFICATION OF INDUSTRIAL POISONING.

THE Factory Department of the Home Office gives notice that every medical practitioner attending on, or called in to visit, a patient whom he believes to be suffering from lead poisoning, phosphorus poisoning, arsenic poisoning, mercury poisoning, or anthrax, contracted in any factory or workshop, is required by s. 73, 1901, under penalty, to notify the case forthwith to the Home Office, unless it has already been so notified; and he is entitled to a fee of 2s. 6d. for so doing.

The notice should state clearly:—

The name, address, and occupation of the patient; the disease from which he or she is suffering; the factory or workshop at which he or she has been employed and is believed to have contracted the disease; the name and address of the notifying practitioner; the date of notification.

The notice should be addressed to the Chief Inspector of Factories, Home Office, London, S.W. No stamp need be affixed. Form for notification will be supplied on application.

M.B.EDIN. (Yorks).—The use of camphor in pneumonia is advocated by many authorities. Markevitch has recently recommended a 10 per cent. camphorated oil in 5 c.c. four times a day or 10 c.c. of a 20 per cent. solution twice daily as a hypodermic injection. The dyspnœa is said to be greatly relieved, and the general symptoms to be much abated. The temperature falls by lysis as the camphor, which has a bactericidal effect, is slowly absorbed.

"FOUR MARKS."

ON board the troopship *Desеado*, en route to ——, all men were advised to be vaccinated. Three or four days after, when the arms were taking well, the following conversation was heard between two privates of different battalions of the same regiment:—

"Bill, I see tha's getten four marks on thy arm and I've nobbut three."

"Ay, tha knows, I belong to th' 4th Battalion, and we've all getten four marks on us arms."

"I'll tell you what it is, Bill; it's a dashed good do we don't belong to th' 10th Battalion!"—*Manchester Guardian.*

Vacancies.

Bradford Poor-law Union.—Assistant Resident Medical Officer. Salary £150, with rations, apartments, and washing. Applications to George M. Crowther, Clerk to the Guardians, Union Offices, 22 Manor Row, Bradford, December 7th, 1914.

Kent County Asylum, Chartham, near Canterbury.—Junior Assistant (third) Medical Officer. Salary £250 per annum, with furnished quarters and attendance, coal, gas, milk, garden produce, washing, and board. Applications to Medical Superintendent.

Hull City Asylum.—Junior Assistant Medical Officer. Salary £200 per annum, with board, lodging, and washing. Applications to the Medical Superintendent at the Asylum, Willerby, near Hull.

Yardley Road Sanatorium (199 beds) and the Anti-Tuberculosis Centre, Birmingham.—Third Assistant Medical Officer. Salary £200 per annum, with board and residence. Applications to the Medical Superintendent, The Sanatorium, Yardley Road, Birmingham.

Edmonton Union (500 beds).—Second Assistant Medical Officer. Salary £160 per annum, with residential allowances. Applications, F. Shelton, Clerk, White Hart Lane, Tottenham, N.

Appointments.

BUSHNELL, FRANK GEORGE, M.D., B.S.Lond., L.R.C.P.Lond., M.R.C.S., D.P.H.Camb., Tuberculosis Officer to the Plymouth Borough Council.

HALL, OCTAVIUS, L.R.C.P. and S.Edin., L.F.P.S.Glasg., D.P.H.Irel., Medical Officer of Health of Plymouth.

MACPHERSON, R. W., M.D.Aberd., Assistant School Medical Officer for the County of Cheshire.

MAGEE, J. R., L.R.C.P. and S.Irel., Medical Officer to the Londonderry Port Sanitary Authority.

MARSDEN, J. ASPINALL, M.R.C.S., L.S.A., Medical Officer of Health to the Hipperholm Urban District Council.

MARTIN, DOUGLAS, M.B., Ch.B.Edin., D.T.M., Assistant School Medical Officer and Assistant Medical Officer of Health for the County Borough of South Shields.

MURRAY, SYDNEY E., L.M.S.S.A., School Medical Officer to the Sutherland Town Council.

Births.

ALPIN.—On December 20th, at 2 Woodville Road, Ealing, the wife of Lt.-Col. W. Alpin, I.M.S., of a daughter.

EDGE.—On Christmas Day, the wife of S. G. Edge, M.D., Wilnecote, Warwickshire, of a son.

EVANS.—On December 22nd, at 101 Princes Avenue, Hull, the wife of H. L. Evans, M.R.C.S., of a son.

PHILLIPS.—On December 26th, at Clinton Road, Redruth, Cornwall, the wife of Lionel L. Phillips, M.R.C.S., of a daughter.

Marriages.

ATLEE: HAMLEY.—On December 23rd, at St. Stephen's Church, Hampstead, Charles Nelson Atlee, M.R.C.S., L.R.C.P., D.P.H., to Dorothy, youngest daughter of Frank Hamley, of Hampstead Hill Gardens, N.W.

BROCK: CORBETT.—On December 5th, at All Souls', Langham Place, very quietly, owing to the war, Lt. E. A. P. Brock, R.A.M.C., to Enid, fourth daughter of J. F. Corbett, of 5 Cavendish Place, W.

PRIESTLEY: BAYLISS.—On December 12th, very quietly, at St. Mark's Church, Dewsbury, Dr. Thomas Priestley, of Dewsbury, to Dr. Kathleen Bayliss, late House Surgeon of the Dewsbury and District Infirmary.

VENABLES: COX.—On December 23rd, at S. Augustine's, Grove Park, S.E., John Frederick Venables, M.B., B.Ch.Oxon., younger son of Mr. and Mrs. E. Geoffrey Venables, Ismeer, Weybridge, to Helen Creswicke, youngest daughter of Mrs. Cox, of Holford, Bridgwater.

Deaths.

JOHNSTON.—On December 26th, at Murtle, Aberdeen, suddenly, Colonel William Johnston, C.B., M.D., LL.D., of Newton Dee, Retired Army Medical Service, aged 71.

LAING.—On Friday, December 25th, suddenly, of heart failure, Ernest Alexander Ronald Laing, M.B.C.S., L.R.C.P., &c., of 4 Heath Hurst Road, Hampstead, N.W., age 42.

LEACHMAN.—On December 24th, at Fairley, Petersfield, Albert Warren Leachman, M.D., aged 76.

MACNALTY.—On December 26th, at Dublin, Francis Charles MacNalty, M.A., M.D., M.Ch.Dub., aged 68.

NEATE.—On December 21st, at Stilton, Forest Hill, Dr. Charles Pitt Wetherell Neate, aged 82.

SIMON.—On December 22nd, at Penshurst, Edgbaston, Sir Robert M. Simon, M.D., F.R.C.P., of heart failure, following influenza, aged 64 years.

SIMPSON.—On December 22nd, at 8 Upper Montagu Street, W., John Pollock Simpson, M.D.

STOKER.—On Christmas Eve, at 14, Hertford Street, Mayfair, W., Ernest Wilson Stoker, M.D., F.R.C.S., sixth son of the late Edward Alexander Stoker, M.B., F.R.C.S., of 46 Rutland Square, Dublin.

TAYLOR.—On December 19th, at Stonehaven, William Edward Taylor, M.B., Ch.B.Aberd., D.P.H.

WHITCOMBE.—On December 12th, at Milcote House, Bearwood, Surg.-Lieut.-Col. William Philip Whitcombe, T.F., J.P.

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